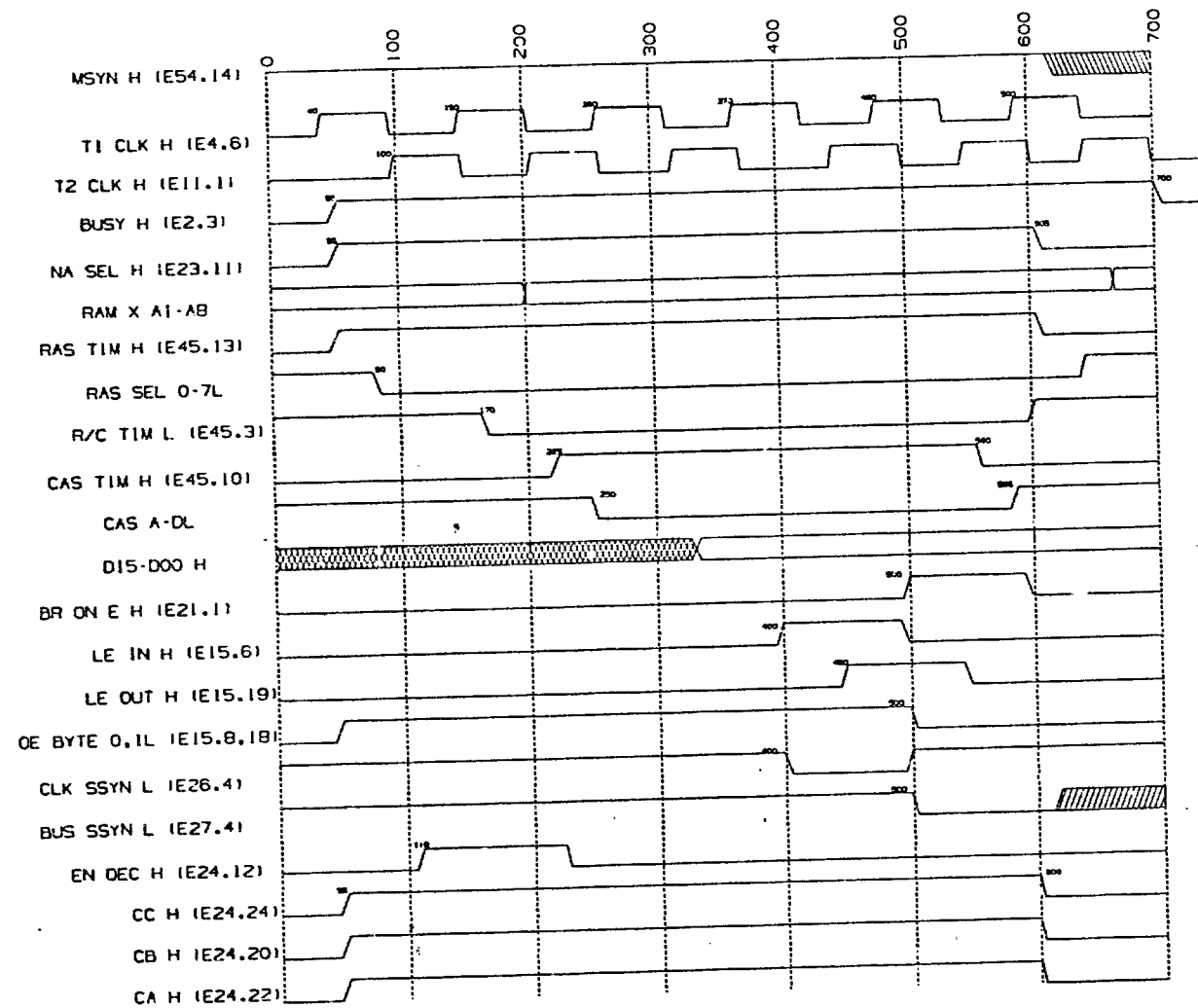


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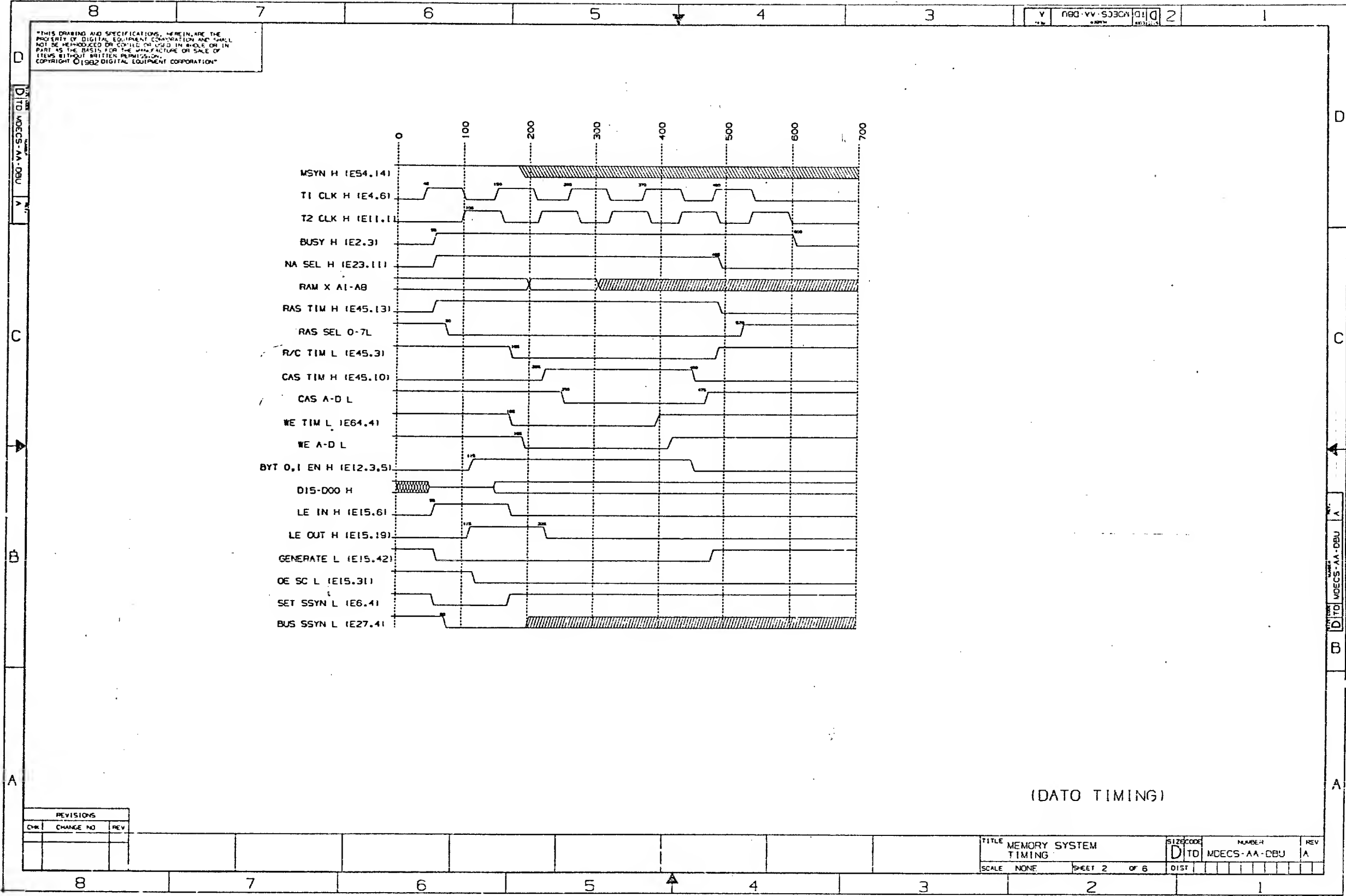


(DATA, TIMING)

| REV. | CHG. | NO. | DATE |
|------|------|-----|------|
| 1    | 1    | 1   | 1    |
| 2    | 2    | 2   | 2    |
| 3    | 3    | 3   | 3    |
| 4    | 4    | 4   | 4    |
| 5    | 5    | 5   | 5    |
| 6    | 6    | 6   | 6    |
| 7    | 7    | 7   | 7    |
| 8    | 8    | 8   | 8    |
| 9    | 9    | 9   | 9    |
| 10   | 10   | 10  | 10   |

|  |  |                             |  |          |  |
|--|--|-----------------------------|--|----------|--|
| DESCRIPTION  |  | DRAWING NO.                 |  | PART NO. |  |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114) |  |                             |  |          |  |
| INCHES TOLERANCES  |  | DIMENSION RANGE IN INCHES   |  |          |  |
| ANGLES 90° 30'   |  | APPROXIMATE DIMENSION RANGE |  |          |  |
| SURFACE QUALITY  |  | HATCHING                    |  |          |  |
| QUANTITY & VARIATION   |  | DATE                        |  |          |  |
| THIRD ANGLE PROJECTION   |  | DATE                        |  |          |  |
| DO NOT SCALE DRAWING   |  | DATE                        |  |          |  |
| REMOVE BURRS AND BREAK SHARP CORNERS   |  | DATE                        |  |          |  |
| MATERIAL   |  | DATE                        |  |          |  |
| FINISH   |  | DATE                        |  |          |  |
| TITLE  |  | DOCUMENT NUMBER             |  |          |  |
| C.W. FIELD   |  | DATE                        |  |          |  |
| J. JANETOS   |  | DATE                        |  |          |  |
| DES. ENG.  |  | DATE                        |  |          |  |
| J. JANETOS   |  | DATE                        |  |          |  |
| RES. ENG.  |  | DATE                        |  |          |  |
| J. JANETOS   |  | DATE                        |  |          |  |
| MFG. ENG.  |  | DATE                        |  |          |  |
| R. WILL  |  | DATE                        |  |          |  |
| TOP DOC.   |  | DATE                        |  |          |  |
| SCALE NONE   |  | SHEET 1 OF 5                |  |          |  |

digital





|        |      |               |        |           |              |  |      |
|--------|------|---------------|--------|-----------|--------------|--|------|
| TITLE  |      | MEMORY SYSTEM |        | SIZE CODE | NUMBER       |  | REV. |
| TIMING |      |               |        | D TO      | MDECS-AA-DBU |  | A    |
| SCALE  | NONE | SHEET         | 3 OF 6 | DIST      |              |  |      |

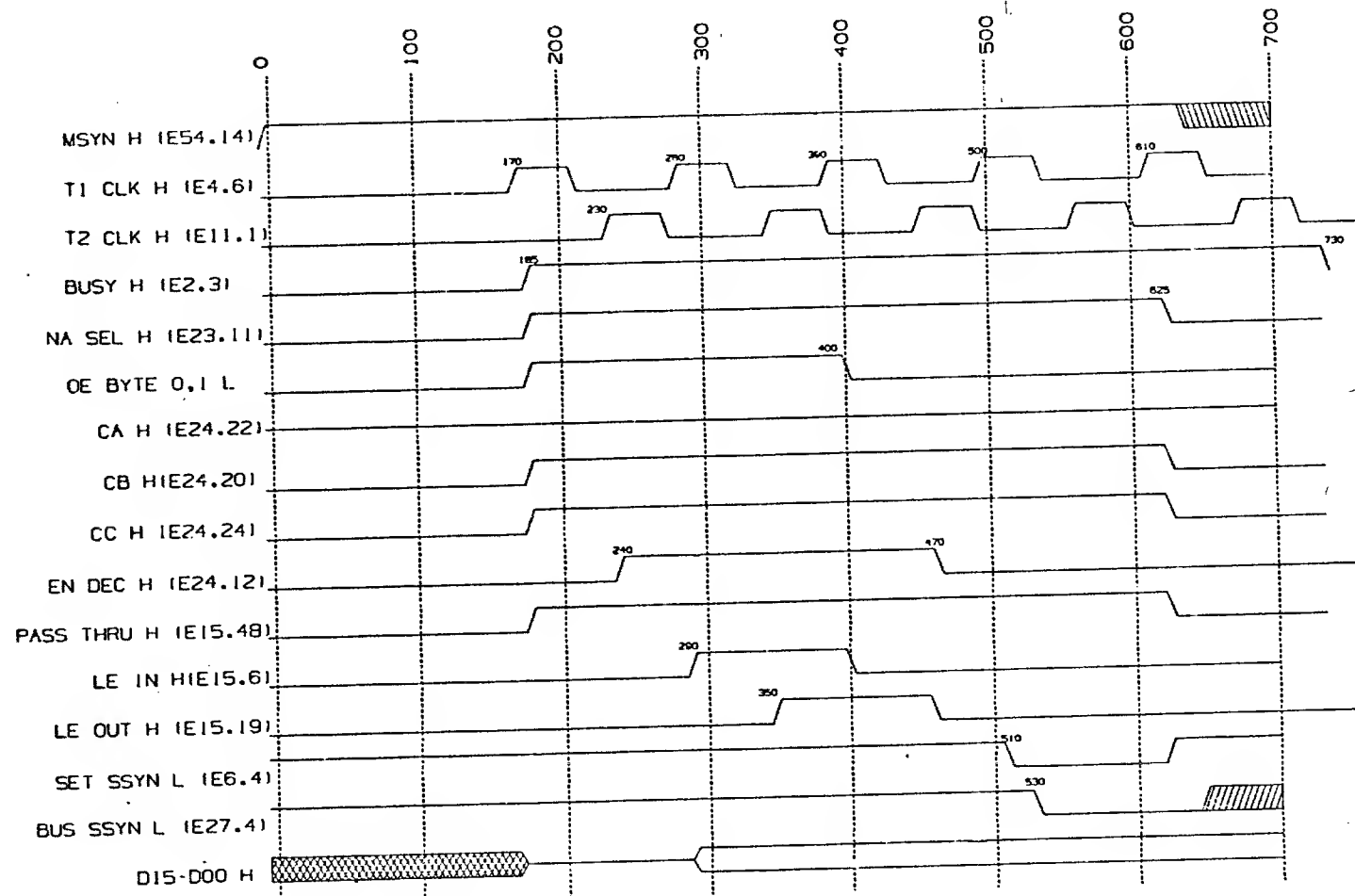
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D TO MOECS-AA-DBU

C

B

A



(DAT1, CSR)

| REVISIONS |            |      |
|-----------|------------|------|
| DATE      | CHANGE NO. | REV. |
|           |            |      |

|        |  |               |  |              |  |        |  |     |  |
|--------|--|---------------|--|--------------|--|--------|--|-----|--|
| TITLE  |  | MEMORY SYSTEM |  | SIZE CODE    |  | NUMBER |  | REV |  |
| TIMING |  | D TO          |  | MOECS-AA-DBU |  | A      |  |     |  |
| SCALE  |  | NONE          |  | SHEET 4      |  | OF 6   |  |     |  |

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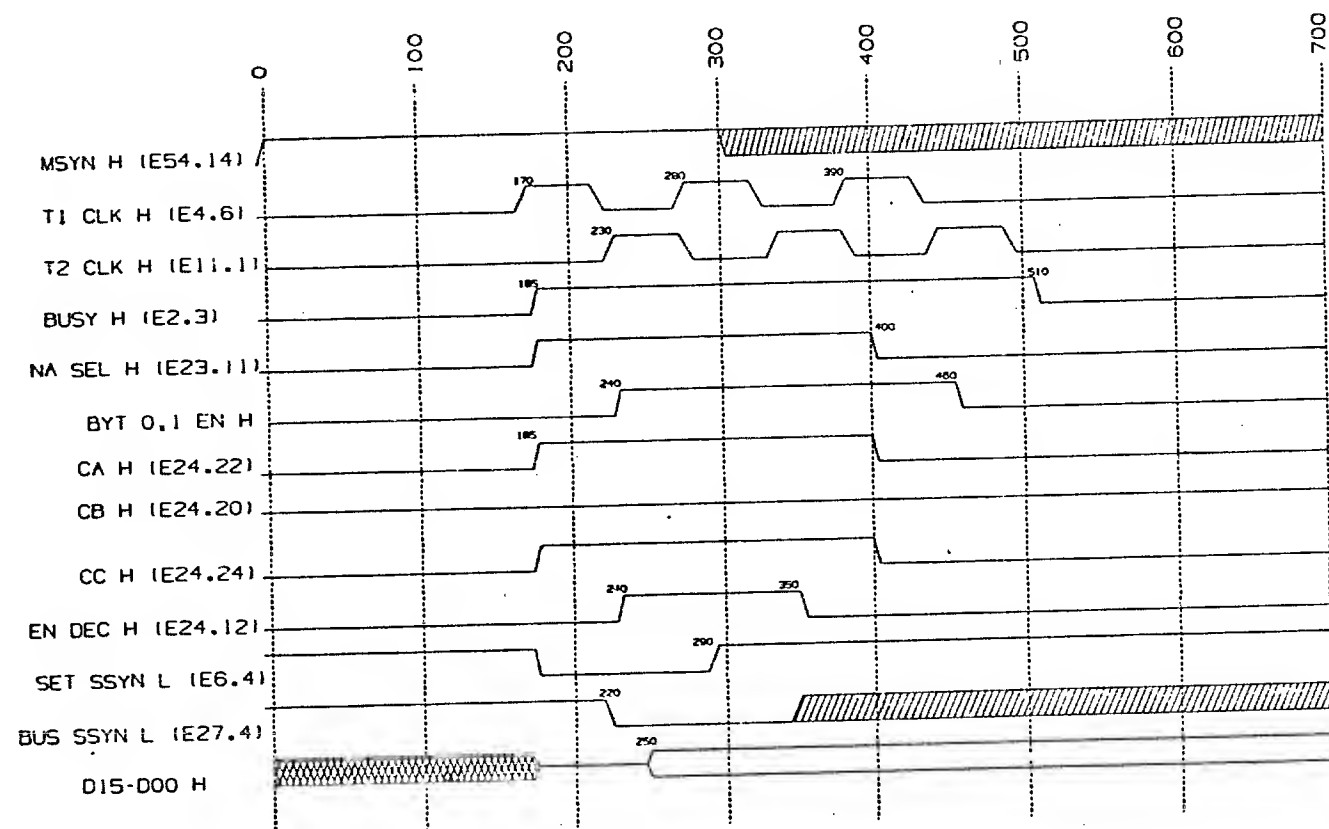
DITD MDEC5-AA-DBU

A

C

B

A

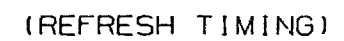


(DATO, CSR)

| REVISIONS |           |     |
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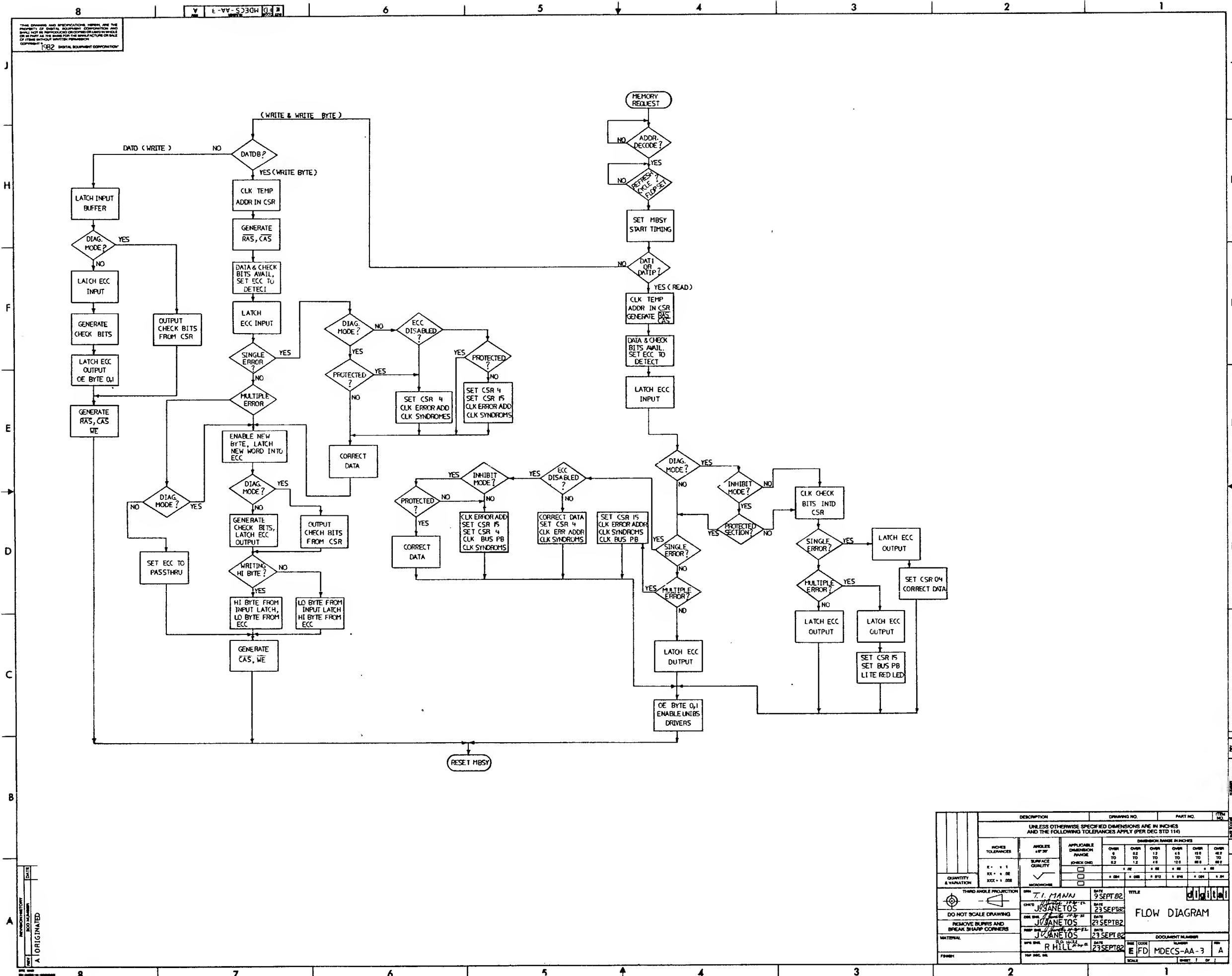
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| TITLE         |  | SIZE CODE | NUMBER       | REV |
| MEMORY SYSTEM |  | DITD      | MDEC5-AA-DBU | A   |
| TIMING        |  |           |              |     |
| SCALE         |  | SHEET     | OF           |     |
| NONE          |  | 5         | 6            |     |
|               |  | DIST      |              |     |

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|---|------|----|----------------|----|
| 2 | DATE | TO | MDCS - A - DBU | BY |
|---|------|----|----------------|----|

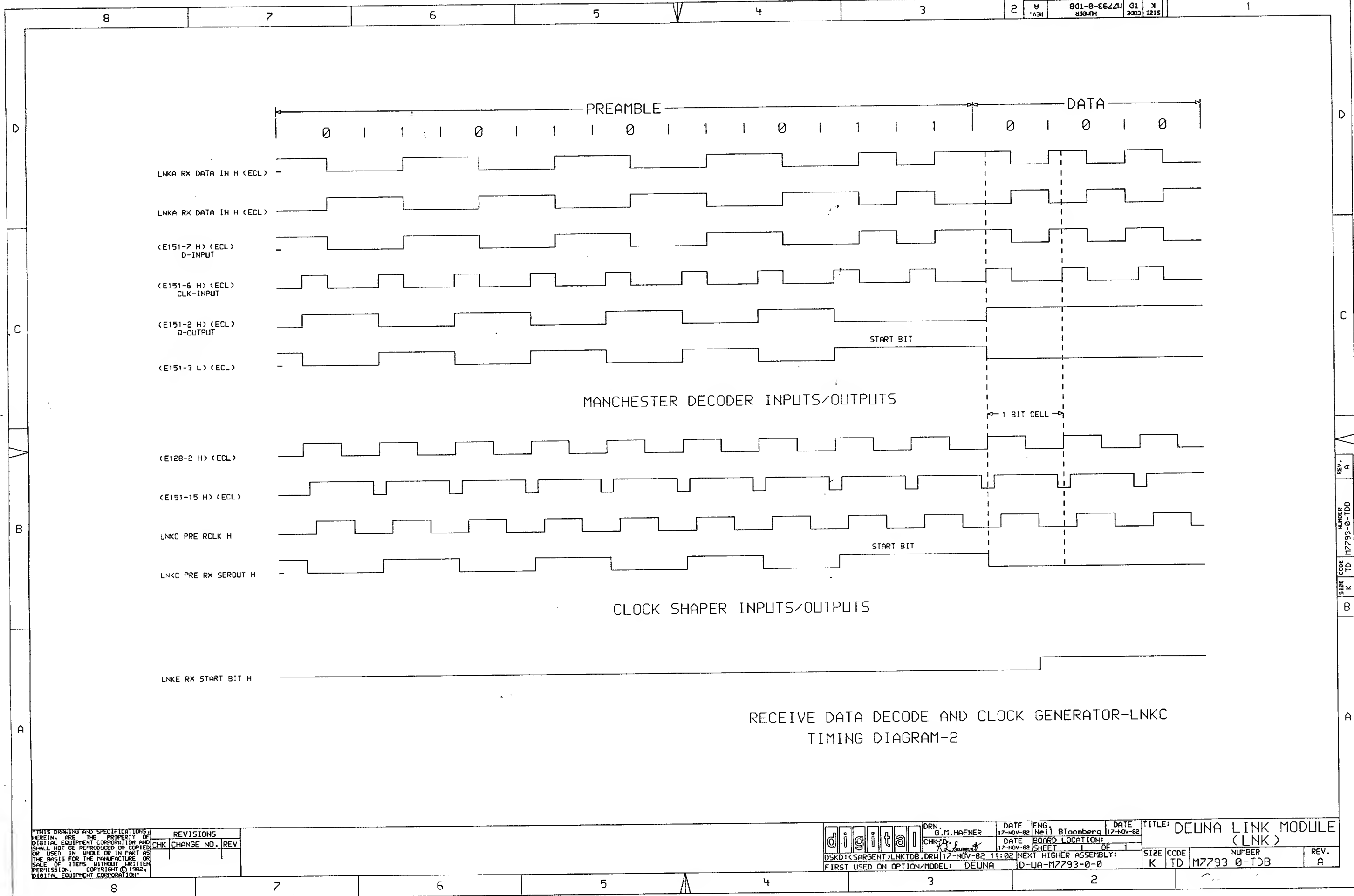


| REVISIONS |           |     |
|-----------|-----------|-----|
| CHK       | CHANGE NO | REV |
|           |           |     |

|        |      |               |   |      |      |                    |  |     |
|--------|------|---------------|---|------|------|--------------------|--|-----|
| TITLE  |      | MEMORY SYSTEM |   | SIZE | CODE | NUMBER             |  | REV |
| TIMING |      |               |   | D    | TD   | MDECS - A.A. - DBU |  | A   |
| SCALE  | NONE | SHEET         | 6 | OF   | 6    | DIST               |  |     |



|   |  |                    |   |                           |                 |   |                     |                       |                         |  |  |
|---|--|--------------------|---|---------------------------|-----------------|---|---------------------|-----------------------|-------------------------|--|--|
|   |  | DESCRIPTION        |   | DRAWING NO.               |                 | PART NO.                                |                     | ITEM NO.              |                         |  |  |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>AND THE FOLLOWING TOLERANCES APPLY PER DEC STD 114 |  |                    |   |                           |                 |   |                     |                       |                         |  |  |
| INCHES<br>TOLERANCES  |  | ANGLES<br>± 1/32"  | APPLICABLE<br>DIMENSION<br>RANGE<br>(INCHES ONLY) | DIMENSION RANGE IN INCHES |                 |   |                     |                       |                         |  |  |
|   |  |                    |   | OVER                      | UNDER           | OVER                                    | UNDER               | OVER                  | UNDER                   |  |  |
| E - 1 1<br>XX - 1 2<br>XXX - 1 3  |  | SURFACE<br>QUALITY | ✓<br><br><br><br><br>MICROFINISH                  | 0 TO 0.25                 | 0 TO 0.125      | 0 TO 0.0625                             | 0 TO 0.03125        | 0 TO 0.015625         | 0 TO 0.0078125          |  |  |
|   |  |                    |   | 0.25 TO 0.5               | 0.125 TO 0.0625 | 0.0625 TO 0.03125                       | 0.03125 TO 0.015625 | 0.015625 TO 0.0078125 | 0.0078125 TO 0.00390625 |  |  |
|   |  |                    |   | QUANTITY & VARIATION      |                 | THIRD ANGLE PROJECTION                  |                     | TITLE                 |                         |  |  |
|   |  |                    |   | DO NOT SCALE DRAWING      |                 | REMOVE BURRS AND<br>BREAK SHARP CORNERS |                     | FLOW DIAGRAM          |                         |  |  |
|   |  |                    |   | MATERIAL                  |                 | DATE                                    |                     | DOCUMENT NUMBER       |                         |  |  |
|   |  |                    |   | FORM                      |                 | TOP SHEET                               |                     | E F D MDECS-AA-3 A    |                         |  |  |



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## FIELD MAINTENANCE PRINT SET

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| REVISION HISTORY |             |           | CONT. REVISION HISTORY |            |      | MADE BY: R. J. RILEY                 |  |  |  |  |
|------------------|-------------|-----------|------------------------|------------|------|--------------------------------------|--|--|--|--|
| REV              | ECO NUMBER  | DATE      | REV                    | ECO NUMBER | DATE | DATE: 10 JAN 83                      |  |  |  |  |
| A                | INITIAL     |           |                        |            |      | CHECKED BY: R. J. RILEY              |  |  |  |  |
| B                | DEUNA-MK002 | 08 MAR 85 |                        |            |      | DATE: 10 JAN 83                      |  |  |  |  |
|                  |             |           |                        |            |      | PROJECT ENGR: M. STECKLAIR           |  |  |  |  |
|                  |             |           |                        |            |      | DATE: 10 JAN 83                      |  |  |  |  |
|                  |             |           |                        |            |      | RSPBLE ENGR: M. STECKLAIR            |  |  |  |  |
|                  |             |           |                        |            |      | DATE: 10 JAN 83                      |  |  |  |  |
|                  |             |           |                        |            |      | FIELD SERVICE: D. DUNCAN             |  |  |  |  |
|                  |             |           |                        |            |      | DATE: 10 JAN 83                      |  |  |  |  |
|                  |             |           |                        |            |      | TITLE: FIELD MAINTENANCE PRINT SET   |  |  |  |  |
|                  |             |           |                        |            |      | DEUNA                                |  |  |  |  |
|                  |             |           |                        |            |      | SIZE   CODE   DOCUMENT NUMBER   REV. |  |  |  |  |
|                  |             |           |                        |            |      | K   TC   DEUNA-0-1   B               |  |  |  |  |
|                  |             |           |                        |            |      | SHEET 1 OF 4                         |  |  |  |  |
|                  |             |           |                        |            |      | MKO                                  |  |  |  |  |

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UNIT VARIATIONS  
COVERED BY THIS  
PRINT SET

DEUNA

FIELD MAINTENANCE PRINT SET

DIGITAL EQUIPMENT CORPORATION

PRINT SET ORDER NO.

MPØ1378

DIGITAL EQUIPMENT CORPORATION  
PRINT SET ORDER NO.

MPØ1378

| REVISION HISTORY |            |      | CONT. REVISION HISTORY |            |      | MADE BY:       |  |                                      |  |  |  |  |  |  |  |
|------------------|------------|------|------------------------|------------|------|----------------|--|--------------------------------------|--|--|--|--|--|--|--|
| REV              | ECO NUMBER | DATE | REV                    | ECO NUMBER | DATE | DATE:          |  | d   i   g   i   t   a   l            |  |  |  |  |  |  |  |
|                  |            |      |                        |            |      | CHECKED BY:    |  | TITLE: FIELD MAINTENANCE PRINT SET   |  |  |  |  |  |  |  |
|                  |            |      |                        |            |      | DATE:          |  |                                      |  |  |  |  |  |  |  |
|                  |            |      |                        |            |      | PROJECT ENGR:  |  | DEUNA                                |  |  |  |  |  |  |  |
|                  |            |      |                        |            |      | DATE:          |  |                                      |  |  |  |  |  |  |  |
|                  |            |      |                        |            |      | RSPBLE ENGR:   |  |                                      |  |  |  |  |  |  |  |
|                  |            |      |                        |            |      | DATE:          |  |                                      |  |  |  |  |  |  |  |
|                  |            |      |                        |            |      | FIELD SERVICE: |  | SIZE   CODE   DOCUMENT NUMBER   REV. |  |  |  |  |  |  |  |
|                  |            |      |                        |            |      | DATE:          |  | K   TC   DEUNA-0-1   B               |  |  |  |  |  |  |  |
|                  |            |      |                        |            |      |                |  | SHEET 2 OF 4 MKO                     |  |  |  |  |  |  |  |



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UNIT VARIATIONS  
COVERED BY THIS  
PRINT SET

DEUNA  
  
FIELD MAINTENANCE PRINT SET  
  
  
DIGITAL EQUIPMENT CORPORATION  
  
PRINT SET ORDER NO.  
  
MPØ1378

|                  |            |      |                        |            |      |                         |  |  |  |  |  |     |  |  |  |
|------------------|------------|------|------------------------|------------|------|-------------------------|--|--|--|--|--|-----|--|--|--|
| REVISION HISTORY |            |      | CONT. REVISION HISTORY |            |      | MADE BY:<br>DATE:       |  | d i g i t a l  |  |  |  |     |  |  |  |
| REV              | ECO NUMBER | DATE | REV                    | ECO NUMBER | DATE | CHECKED BY:<br>DATE:    |  | TITLE: FIELD MAINTENANCE PRINT SET                             |  |  |  |     |  |  |  |
|                  |            |      |                        |            |      | PROJECT ENGR:<br>DATE:  |  | DEUNA  |  |  |  |     |  |  |  |
|                  |            |      |                        |            |      | RSPBLE ENGR:<br>DATE:   |  |  |  |  |  |     |  |  |  |
|                  |            |      |                        |            |      | FIELD SERVICE:<br>DATE: |  | SIZE   CODE   DOCUMENT NUMBER   REV.<br>K   TC   DEUNA-Ø-1   B |  |  |  |     |  |  |  |
|                  |            |      |                        |            |      |                         |  | SHEET 3 OF 4   |  |  |  | MKO |  |  |  |

|   |            |      |                        |            |      |   |  |                                      |  |
|---|------------|------|------------------------|------------|------|---|--|--------------------------------------|--|
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| K-CS-M7793-0-TDR M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  | DEUNA                                |  |
| K-CS-M7793-0-TDS M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TDT M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  | FIELD MAINTENANCE PRINT SET          |  |
| K-CS-M7793-0-TDU M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TDV M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TDW M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TTA M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TTB M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  | DIGITAL EQUIPMENT CORPORATION        |  |
| K-CS-M7793-0-TTC M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  | PRINT SET ORDER NO.                  |  |
| K-CS-M7793-0-TTD M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  | MP01378                              |  |
| K-CS-M7793-0-TTE M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TTF M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TTH M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TTJ M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TTK M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TTL M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TTM M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-M7793-0-TTN M7793 CIRCUIT SCHEMATIC  |            |      |                        |            |      |   |  |                                      |  |
| D-IA-BC08R-0-0 I/O CABLE  |            |      |                        |            |      |   |  |                                      |  |
| K-PL-BC08R-0-0 I/O CABLE PARTS LIST   |            |      |                        |            |      |   |  |                                      |  |
| K-PL-CK-DEUNA-0-0 DEUNA CABINET KIT PARTS LIST  |            |      |                        |            |      |   |  |                                      |  |
| D-IA-7018798-0-0 UNA BULKHEAD CABLE ASSEMBLY  |            |      |                        |            |      |   |  |                                      |  |
| K-PL-7018798-0-0 UNA BULKHEAD CABLE ASSEMBLY PARTS LIST   |            |      |                        |            |      |   |  |                                      |  |
| D-AD-7018799-0-0 UNA BULKHEAD ASSEMBLY  |            |      |                        |            |      |   |  |                                      |  |
| K-PL-7018799-0-0 UNA BULKHEAD ASSEMBLY PARTS LIST   |            |      |                        |            |      |   |  |                                      |  |
| B-IA-7018801-0-0 JUMPER WIRE  |            |      |                        |            |      |   |  |                                      |  |
| B-DD-5415552-0 UNA BULKHEAD DRAWING DIRECTORY   |            |      |                        |            |      |   |  |                                      |  |
| D-UA-5415552-0-0 UNA BULKHEAD UNIT ASSEMBLY   |            |      |                        |            |      |   |  |                                      |  |
| K-PL-5415552-0-0 UNA BULKHEAD PARTS LIST  |            |      |                        |            |      |   |  |                                      |  |
| K-CS-5415552-0-1 UNA BULKHEAD CIRCUIT SCHEMATIC   |            |      |                        |            |      |   |  |                                      |  |
| REVISION HISTORY  |            |      | CONT. REVISION HISTORY |            |      | MADE BY:                                  |  | d i g i t a l                        |  |
| REV   | ECO NUMBER | DATE | REV                    | ECO NUMBER | DATE | DATE:                                     |  |                                      |  |
|   |            |      |                        |            |      | CHECKED BY:                               |  | TITLE: FIELD MAINTENANCE PRINT SET   |  |
|   |            |      |                        |            |      | DATE:                                     |  | DEUNA                                |  |
|   |            |      |                        |            |      | PROJECT ENGR:                             |  |                                      |  |
|   |            |      |                        |            |      | DATE:                                     |  |                                      |  |
|   |            |      |                        |            |      | RSPBLE ENGR:                              |  |                                      |  |
|   |            |      |                        |            |      | DATE:                                     |  |                                      |  |
|   |            |      |                        |            |      | FIELD SERVICE:                            |  | SIZE   CODE   DOCUMENT NUMBER   REV. |  |
|   |            |      |                        |            |      | DATE:                                     |  | K   TC   DEUNA-0-1   B               |  |
|   |            |      |                        |            |      | SHEET 4 OF 4                              |  | MKO                                  |  |

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DRAWING DIRECTORY

FOR FIELD MAINTENANCE PRINT SET REFER TO K-TC-DEUNA-0-1

| UNIT VARIATIONS |                         |
|-----------------|-------------------------|
| VARIATION       | TITLE                   |
| DEUNA-AA        | OPTION DEUNA            |
| DEUNA-KP        | SYSTEM INTEGRATED DEUNA |
| DEUNA-M         | DEUNA MODULE SET        |

| REVISION HISTORY |             |     | USED ON OPTION/MODEL         | RESPONSIBLE ENGR. : P. GILDEA |                          |                 |   |   |   |      |   |     |  |
|------------------|-------------|-----|------------------------------|-------------------------------|--------------------------|-----------------|---|---|---|------|---|-----|--|
| ENG              | ECO NUMBER  | REV |                              | DATE: 10 OCT 82               | d                        | i               | g | i | t | a    | l |     |  |
| MS               | DEUNA-TW001 | B   | DEUNA-AA,-M,-KP,             | MADE BY : R. J. RILEY         | TITLE: DRAWING DIRECTORY |                 |   |   |   |      |   |     |  |
| ML               | DEUNA-MK002 | C   |                              | DATE: 10 OCT 82               |                          |                 |   |   |   |      |   |     |  |
|                  |             |     |                              | CHECKED BY : R. J. RILEY      | OPTION, DEUNA            |                 |   |   |   |      |   |     |  |
|                  |             |     |                              | DATE: 10 OCT 82               |                          |                 |   |   |   |      |   |     |  |
|                  |             |     | DESIGN ENGINEER : P. GILDEA  |                               |                          |                 |   |   |   |      |   |     |  |
|                  |             |     | DATE: 10 OCT 82              |                               |                          |                 |   |   |   |      |   |     |  |
|                  |             |     | PRODUCTION ENGR. : D. DUNCAN | SIZE                          | CODE                     | DOCUMENT NUMBER |   |   |   | REV. |   |     |  |
|                  |             |     | DATE: 10 OCT 82              | K                             | DD                       | DEUNA-0         |   |   |   | C    |   |     |  |
|                  |             |     |                              | SHEET 1 OF 2                  |                          |                 |   |   |   |      |   | MKO |  |





AUTOMATED BY PRILST,5R(55)

## P A R T S   L I S T

SHEET A1 OF A1

| MIN                       |      |                    |             |                                  | QTY PER VARIATION |     |     |
|---------------------------|------|--------------------|-------------|----------------------------------|-------------------|-----|-----|
| LINE                      | ITEM | TOP DOCUMENT       | PART NUMBER | REV DESCRIPTION                  | AA                | M   | KP  |
| VARIATION REVISION LEVEL: |      |                    |             |                                  | A1                | A1  | A1  |
| 1                         | 1    | E-UA-DEUNA-0-0     |             | OPTION DEUNA                     | REF               | REF | REF |
| 2                         | 2    | D-AD-7018799-0-0   | 7018799-00  | UNA BULKHEAD ASSY.               | 1                 | REF | REF |
| 3                         | 3    | D-UA-M7792-0-0     | M7792-00    | DEUNA PORT MODULE(UNIBUS TO ETHE | 1                 | 1   | 1   |
| 4                         | 4    | D-UA-M7793-0-0     | M7793-00    | DEUNA LINK MODULE(M7792 TO ETHER | 1                 | 1   | 1   |
| 5                         | 5    | SEE NOTE           | BC08R-00    | I/O CABLE                        | 2                 | 2   | 2   |
| 6                         | 7    |                    | 9006073-03  | SCREW,MACH TRUSS PHIL 10-        | 2                 | REF | REF |
| 7                         | 8    |                    | 9007786-00  | RETAINER,U-NUT 10-32X            | 2                 | REF | REF |
| 8                         | 9    | A-PA-3700713-0-0   | 3700713-01  | PKG OPTION DEUNA-AA CUSTOMER     | 1                 | REF | REF |
| 9                         | 10   | D-IA-7427292-0-DBU | 7427292-01  | FRAME,I/O DOUBLE QUAD            | 1                 | REF | REF |
| 10                        | 12   | D-IA-7018798-0-0   | 7018798-08  | UNA BULKHEAD CABLE ASSY.         | 1                 | REF | REF |
| 11                        | 13   |                    | 3906557-00  | BAG,POLY RECLOSE 2 MIL THK CLEA  | 1                 | REF | REF |
| 12                        | 14   |                    | EKDEUNA-UG  | DEUNA USER'S GUIDE               | 1                 | 1   | 1   |
| 13                        | 15   | K-PL-CKDEUNA-0-0   | CKDEUNA-00  | CABKIT REF TO K-AR-CKCKREF-0-0   | REF               | -   | 1   |

- 14 NOTE: NOTE 1. IF BC08R CABLE IS NOT AVAILABLE, BC08S-01 MAY  
15 NOTE: BE USED IN ITS' PLACE.  
16 NOTE: NOTE 2. ITEMS 7 & 8 TO BE PUT INTO ITEM 13 FOR SHIPPING.  
17 NOTE: NOTE 3. CK-DEUNA-00 IS A REFERENCE VARIANT ONLY.  
18 NOTE: SEE K-AR-CKCKREF-0-0 FOR EXACT VARIANT APPLICATION.

| REVISION HISTORY |             |     | BASIC PART NO: DEUNA    |  | DRN: H.DENSMORE  |              | DATE: 21-FEB-85 |  | D I G I T A L           |            |           |     |
|------------------|-------------|-----|-------------------------|--|------------------|--------------|-----------------|--|-------------------------|------------|-----------|-----|
| ENG              | ECO NUMBER  | REV | SECTION A OF A          |  | CHK'D:           | B.FRASER     | 28-MAR-85       |  | TITLE PARTS LIST        |            |           |     |
| ML               | DEUNA-MK002 | C   | SECTION VARIATION INDEX |  | CHK'D:           | B.FRASER     | 21-FEB-85       |  | OPTION DEUNA            |            |           |     |
|                  |             |     | [A] AA,M ,KP            |  |                  |              |                 |  |                         |            |           |     |
|                  |             |     | [B]                     |  | DES.ENG:         | M. STECKLAIR | 21-OCT-82       |  | DOCUMENT NUMBER         |            |           |     |
|                  |             |     | [C]                     |  | RESP.ENG.:       | M. LAWRENCE  | 21-FEB-85       |  | SIZE                    | CODE       | NUMBER    | REV |
|                  |             |     | [D]                     |  |                  |              |                 |  | K                       | PL         | DEUNA-0-0 | C   |
|                  |             |     | [E]                     |  | MFG.ENG.:        | W.BROOKE     | 21-FEB-85       |  | RELEASE DATE: 27-MAR-85 |            |           |     |
|                  |             |     | [F]                     |  | ASSEMBLY NUMBER: |              |                 |  |                         |            |           |     |
|                  |             |     |                         |  | E-UA-DEUNA-0-0   |              |                 |  | TOP DOCUMENT NUMBER:    | FILE NAME: | EDIT      |     |
|                  |             |     |                         |  |                  |              |                 |  | *K-DD-DEUNA-0           | MK1178.PLS | 4         |     |

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|---|------------------|-------------------|------------------------|-------------------|------|---|---|---|---|--------------------------------|----|----|----|--|--|--|
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| DRAWING DIRECTORY   |                  |                   |                        |                   |      |   |   |   |   |                                |    |    |    |  |  |  |
| ITEM  | DRAWING NO.      | NO. OF SHTS       | PART NO.               | DESCRIPTION       | TYPE | REVISIONS   |   |   |   |                                |    |    |    |  |  |  |
|   |                  |                   |                        |                   |      | A   | A | A | A | A                              | A  | A  | A  |  |  |  |
|   | 1                |                   | M7792-00               | DEUNA PORT MODULE |      |   |   |   |   |                                |    |    |    |  |  |  |
|   | 2                | D-UA-M7792-0-0    | 2                      | UNIT ASSEMBLY     |      | A   | B | B | B | B                              | B1 | B1 | B1 |  |  |  |
|   | 3                | D-EC-5015542-0-0  | 3                      | ETCH CUT          |      | A   | B | B | B | B                              | B1 | B1 | B1 |  |  |  |
|   | 4                |                   | 5015542-00             | ETCH              |      | B   | B | B | B | B                              | B  | B  | B  |  |  |  |
|   | 5                | D-MD-5015542-0-0  | 5                      | DRILL & ETCH      |      | A   | A | A | A | A                              | A1 | A1 | A1 |  |  |  |
|   | 6                | K-PL-M7792-0-0    | 3                      | PARTS LIST        |      | A   | A | B | C | D                              | D1 | D1 | D1 |  |  |  |
|   | 7                | K-PC-M7792-0-DBI  |                        | PC DATABASE       |      | B   | B | B | B | B                              | B  | B  | B  |  |  |  |
|   | 8                | K-CS-M7792-0-DBS  |                        | SUDS DATABASE     |      | A   | B | C | C | C                              | C1 | C1 | C1 |  |  |  |
|   | 9                | K-CS-M7792-0-PRTA | 1                      | SCHEMATIC         |      | A   | A | A | A | A                              | A1 | A1 | A1 |  |  |  |
|   | 10               | K-CS-M7792-0-PRTB | 1                      | SCHEMATIC         |      | A   | A | A | A | A                              | A1 | A1 | A1 |  |  |  |
|   | 11               | K-CS-M7792-0-PRTC | 1                      | SCHEMATIC         |      | A   | A | A | A | A                              | A1 | A1 | A1 |  |  |  |
|   | 12               | K-CS-M7792-0-PRTD | 1                      | SCHEMATIC         |      | A   | B | B | B | B                              | B1 | B1 | B1 |  |  |  |
|   | 13               | K-CS-M7792-0-PRTE | 1                      | SCHEMATIC         |      | A   | B | B | B | B                              | B1 | B1 | B1 |  |  |  |
|   | 14               | K-CS-M7792-0-PRTF | 1                      | SCHEMATIC         |      | A   | A | A | A | A                              | A1 | A1 | A1 |  |  |  |
|   | 15               | K-CS-M7792-0-PRTH | 1                      | SCHEMATIC         |      | A   | A | A | A | A                              | A1 | A1 | A1 |  |  |  |
|   | 16               | K-CS-M7792-0-PRTJ | 1                      | SCHEMATIC         |      | A   | A | A | A | A                              | A1 | A1 | A1 |  |  |  |
|   | 17               | K-CS-M7792-0-PRTK | 1                      | SCHEMATIC         |      | A   | B | B | B | B                              | B1 | B1 | B1 |  |  |  |
|   | 18               | K-CS-M7792-0-PRTL | 1                      | SCHEMATIC         |      | A   | A | A | A | A                              | A1 | A1 | A1 |  |  |  |
|   | 19               | K-CS-M7792-0-PRTM | 1                      | SCHEMATIC         |      | A   | B | B | B | B                              | B1 | B1 | B1 |  |  |  |
|   | 20               | K-CS-M7792-0-PRTN | 1                      | SCHEMATIC         |      | A   | B | B | B | B                              | B1 | B1 | B1 |  |  |  |
|   | 21               | K-CS-M7792-0-PRTP | 1                      | SCHEMATIC         |      | A   | A | B | B | B                              | B1 | B1 | B1 |  |  |  |
|   | 22               | K-CS-M7792-0-PRTR | 1                      | SCHEMATIC         |      | A   | A | A | A | A                              | A1 | A1 | A1 |  |  |  |
|   | 23               | K-CS-M7792-0-PRTS | 1                      | SCHEMATIC         |      | A   | A | A | A | A                              | A1 | A1 | A1 |  |  |  |
| 24  | K-CS-M7792-0-TT1 | 1                 | SCHEMATIC              |                   | A    | A   | A | A | A | A1                             | A1 | A1 |    |  |  |  |
| 25  | K-CS-M7792-0-TT2 | 1                 | SCHEMATIC              |                   | A    | A   | A | A | A | A1                             | A1 | A1 |    |  |  |  |
| NOTES: 1. SHEETS 1 & 2 OF THIS DD LIST THE REVISION LEVEL TO SUPPORT ETCH REV B.  |                  |                   |                        |                   | DD   |   |   |   |   |                                |    |    |    |  |  |  |
| 2. SHEETS 3 & 4 OF THIS DD LIST THE REVISION LEVEL TO SUPPORT ETCH REV C.   |                  |                   |                        |                   | REV  | A   | B | C | D | E                              | F  | H  | J  |  |  |  |
| REVISION HISTORY  |                  |                   | CONT. REVISION HISTORY |                   |      | MADE BY: T. WALSH<br>DATE: 04 NOV 82                              |   |   |   | d i g i t a l                  |    |    |    |  |  |  |
| ENG   | ECO NUMBER       | REV               | ENG                    | ECO NUMBER        | REV  | CHECKED BY: T. WALSH <i>JLC</i> 12-APR-85<br>DATE: 04 NOV 82      |   |   |   | TITLE DRAWING DIRECTORY        |    |    |    |  |  |  |
| ML  | INITIAL          | A                 |                        |                   |      | DESIGN ENGINEER: M. LAWRENCE <i>ML</i><br>DATE: 02 APR 85 4-12-85 |   |   |   | DEUNA PORT MODULE              |    |    |    |  |  |  |
|   | M7792-TW001      | B                 |                        |                   |      | RESPONSIBLE ENG: M. LAWRENCE <i>ML</i><br>DATE: 02 APR 85 4-12-85 |   |   |   |                                |    |    |    |  |  |  |
|   | M7792-TW002      | C                 |                        |                   |      | PRODUCTION ENG: W. BROOKE<br>DATE: 02 APR 85                      |   |   |   | SIZE CODE DOCUMENT NUMBER REV. |    |    |    |  |  |  |
|   | M7792-TW003      | D                 |                        |                   |      |   |   |   |   | K DD M7792-0 J                 |    |    |    |  |  |  |
|   | M7792-TW004      | E                 |                        |                   |      |   |   |   |   | SHEET 1 OF 4 MKO               |    |    |    |  |  |  |
|   | M7792-TW005      | F                 |                        |                   |      |   |   |   |   |                                |    |    |    |  |  |  |
|   | M7792-TW006      | H                 |                        |                   |      |   |   |   |   |                                |    |    |    |  |  |  |
|   | M7792-MK007      | J                 |                        |                   |      |   |   |   |   |                                |    |    |    |  |  |  |

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DRAWING DIRECTORY CONTINUED

|                        |                  |             |                        |             |        |                  |   |   |                                      |   |    |    |    |  |  |  |  |
|------------------------|------------------|-------------|------------------------|-------------|--------|------------------|---|---|--------------------------------------|---|----|----|----|--|--|--|--|
| ITEM                   | DRAWING NO.      | NO. OF SHTS | PART NO.               | DESCRIPTION | TYPE   | REVISIONS        |   |   |                                      |   |    |    |    |  |  |  |  |
|                        |                  |             |                        |             |        | A                | A | A | A                                    | A | A1 | A1 | A1 |  |  |  |  |
|                        |                  |             |                        |             |        | A                | A | A | A                                    | A | A1 | A1 | A1 |  |  |  |  |
|                        |                  |             |                        |             |        | A                | A | A | A                                    | A | A1 | A1 | A1 |  |  |  |  |
| 26                     | K-CS-M7792-0-TT3 | 1           |                        | SCHEMATIC   |        |                  |   |   |                                      |   |    |    |    |  |  |  |  |
| 27                     | K-CS-M7792-0-TT4 | 1           |                        | SCHEMATIC   |        |                  |   |   |                                      |   |    |    |    |  |  |  |  |
| 28                     | K-CS-M7792-0-TT5 | 1           |                        | SCHEMATIC   |        |                  |   |   |                                      |   |    |    |    |  |  |  |  |
| NOTES:                 |                  |             |                        |             | DD REV | A                | B | C | D                                    | E | F  | H  | J  |  |  |  |  |
| REVISION HISTORY       |                  |             | CONT. REVISION HISTORY |             |        | MADE BY:         |   |   | d i g i t a l                        |   |    |    |    |  |  |  |  |
|                        |                  |             |                        |             |        | DATE:            |   |   |                                      |   |    |    |    |  |  |  |  |
| ENG   ECO NUMBER   REV |                  |             | ENG   ECO NUMBER   REV |             |        | CHECKED BY:      |   |   | TITLE DRAWING DIRECTORY              |   |    |    |    |  |  |  |  |
|                        |                  |             |                        |             |        | DATE:            |   |   |                                      |   |    |    |    |  |  |  |  |
|                        |                  |             |                        |             |        | DESIGN ENGINEER: |   |   | DEUNA PORT MODULE                    |   |    |    |    |  |  |  |  |
|                        |                  |             |                        |             |        | DATE:            |   |   |                                      |   |    |    |    |  |  |  |  |
|                        |                  |             |                        |             |        | RESPONSIBLE ENG: |   |   | SIZE   CODE   DOCUMENT NUMBER   REV. |   |    |    |    |  |  |  |  |
|                        |                  |             |                        |             |        | DATE:            |   |   |                                      |   |    |    |    |  |  |  |  |
|                        |                  |             |                        |             |        | PRODUCTION ENG:  |   |   | K   DD   M7792-0   J                 |   |    |    |    |  |  |  |  |
|                        |                  |             |                        |             |        | DATE:            |   |   |                                      |   |    |    |    |  |  |  |  |
| SHEET 2 OF 4 MKO       |                  |             |                        |             |        |                  |   |   |                                      |   |    |    |    |  |  |  |  |



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DRAWING DIRECTORY CONTINUED

| ITEM             | DRAWING NO.       | NO. OF SHTS | PART NO.   | DESCRIPTION       | TYPE                   | REVISIONS              |   |   |   |                         |                        |                 |      |  |  |  |  |
|------------------|-------------------|-------------|------------|-------------------|------------------------|------------------------|---|---|---|-------------------------|------------------------|-----------------|------|--|--|--|--|
|                  |                   |             |            |                   |                        | A                      | B | C | D | E1                      | E2                     | E3              | E4   |  |  |  |  |
| 29               |                   |             | M7792-00   | DEUNA PORT MODULE |                        | A                      | B | C | D | E1                      | E2                     | E3              | E4   |  |  |  |  |
| 30               | D-UA-M7792-0-0    | 2           |            | UNIT ASSEMBLY     |                        | A                      | B | B | B | B                       | C                      | D               | E    |  |  |  |  |
| 31               | D-EC-5015542-0-0  | 3           |            | ETCH CUT          |                        | A                      | B | B | B | B                       | -                      | -               | -    |  |  |  |  |
| 32               |                   |             | 5015542-00 | ETCH              |                        | B                      | B | B | B | B                       | C                      | C               | C    |  |  |  |  |
| 33               | D-MD-5015542-0-0  | 5           |            | DRILL & ETCH      |                        | A                      | A | A | A | A                       | B                      | B               | B    |  |  |  |  |
| 34               | K-PL-M7792-0-0    | 3           |            | PARTS LIST        |                        | A                      | A | B | C | D                       | E                      | F               | H    |  |  |  |  |
| 35               | K-PC-M7792-0-DBI  |             |            | PC DATABASE       |                        | B                      | B | B | B | B                       | C                      | C               | C    |  |  |  |  |
| 36               | K-CS-M7792-0-DBS  |             |            | SUDS DATABASE     |                        | A                      | B | C | C | C                       | D                      | E               | E    |  |  |  |  |
| 37               | K-CS-M7792-0-PRTA | 1           |            | SCHEMATIC         |                        | A                      | A | A | A | A                       | A                      | A               | A    |  |  |  |  |
| 38               | K-CS-M7792-0-PRTB | 1           |            | SCHEMATIC         |                        | A                      | A | A | A | A                       | A                      | A               | A    |  |  |  |  |
| 39               | K-CS-M7792-0-PRTC | 1           |            | SCHEMATIC         |                        | A                      | A | A | A | A                       | A                      | A               | A    |  |  |  |  |
| 40               | K-CS-M7792-0-PRTD | 1           |            | SCHEMATIC         |                        | A                      | B | B | B | B                       | C                      | C               | C    |  |  |  |  |
| 41               | K-CS-M7792-0-PRTE | 1           |            | SCHEMATIC         |                        | A                      | B | B | B | B                       | C                      | C               | C    |  |  |  |  |
| 42               | K-CS-M7792-0-PRTF | 1           |            | SCHEMATIC         |                        | A                      | A | A | A | A                       | A                      | A               | A    |  |  |  |  |
| 43               | K-CS-M7792-0-PRTH | 1           |            | SCHEMATIC         |                        | A                      | A | A | A | A                       | B                      | B               | B    |  |  |  |  |
| 44               | K-CS-M7792-0-PRTJ | 1           |            | SCHEMATIC         |                        | A                      | A | A | A | A                       | B                      | B               | B    |  |  |  |  |
| 45               | K-CS-M7792-0-PRTK | 1           |            | SCHEMATIC         |                        | A                      | B | B | B | B                       | C                      | C               | C    |  |  |  |  |
| 46               | K-CS-M7792-0-PRTL | 1           |            | SCHEMATIC         |                        | A                      | A | A | A | A                       | B                      | B               | B    |  |  |  |  |
| 47               | K-CS-M7792-0-PRTM | 1           |            | SCHEMATIC         |                        | A                      | B | B | B | B                       | C                      | C               | C    |  |  |  |  |
| 48               | K-CS-M7792-0-PRTN | 1           |            | SCHEMATIC         |                        | A                      | B | B | B | B                       | C                      | C               | C    |  |  |  |  |
| 49               | K-CS-M7792-0-PRTP | 1           |            | SCHEMATIC         |                        | A                      | A | B | B | B                       | C                      | C               | C    |  |  |  |  |
| 50               | K-CS-M7792-0-PRTR | 1           |            | SCHEMATIC         |                        | A                      | A | A | A | A                       | A                      | A               | A    |  |  |  |  |
| 51               | K-CS-M7792-0-PRTS | 1           |            | SCHEMATIC         |                        | A                      | A | A | A | A                       | A                      | A               | A    |  |  |  |  |
| 52               | K-CS-M7792-0-TT1  | 1           |            | SCHEMATIC         |                        | A                      | A | A | A | A                       | A                      | A               | A    |  |  |  |  |
| 53               | K-CS-M7792-0-TT2  | 1           |            | SCHEMATIC         |                        | A                      | A | A | A | A                       | A                      | A               | A    |  |  |  |  |
| NOTES:           |                   |             |            |                   | DD REV                 | A                      | B | C | D | E                       | F                      | H               | J    |  |  |  |  |
| REVISION HISTORY |                   |             |            |                   | CONT. REVISION HISTORY |                        |   |   |   | MADE BY: DATE:          |                        |                 |      |  |  |  |  |
| ENG              | ECO NUMBER        | REV         | ENG        | ECO NUMBER        | REV                    | CHECKED BY: DATE:      |   |   |   |                         | DESIGN ENGINEER: DATE: |                 |      |  |  |  |  |
|                  |                   |             |            |                   |                        | RESPONSIBLE ENG: DATE: |   |   |   |                         | PRODUCTION ENG: DATE:  |                 |      |  |  |  |  |
|                  |                   |             |            |                   |                        |                        |   |   |   | TITLE DRAWING DIRECTORY |                        |                 |      |  |  |  |  |
|                  |                   |             |            |                   |                        |                        |   |   |   | DEUNA PORT MODULE       |                        |                 |      |  |  |  |  |
|                  |                   |             |            |                   |                        |                        |   |   |   | SIZE                    | CODE                   | DOCUMENT NUMBER | REV. |  |  |  |  |
|                  |                   |             |            |                   |                        |                        |   |   |   | K                       | DD                     | M7792-0         | J    |  |  |  |  |
|                  |                   |             |            |                   |                        |                        |   |   |   | SHEET 3 OF 4 MKO        |                        |                 |      |  |  |  |  |

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DRAWING DIRECTORY CONTINUED

| ITEM | DRAWING NO.      | NO. OF SHTS | PART NO. | DESCRIPTION | TYPE | REVISIONS |   |   |   |   |   |   |   |   |  |  |  |
|------|------------------|-------------|----------|-------------|------|-----------|---|---|---|---|---|---|---|---|--|--|--|
|      |                  |             |          |             |      | A         | A | A | A | A | A | A | B | B |  |  |  |
| 54   | K-CS-M7792-0-TT3 | 1           |          | SCHEMATIC   |      | A         | A | A | A | A | A | A | A |   |  |  |  |
| 55   | K-CS-M7792-0-TT4 | 1           |          | SCHEMATIC   |      | A         | A | A | A | A | A | B | B |   |  |  |  |
| 56   | K-CS-M7792-0-TT5 | 1           |          | SCHEMATIC   |      | A         | A | A | A | A | A | B | B |   |  |  |  |
| 57   | K-CS-M7792-0-TT6 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 58   | K-CS-M7792-0-TT7 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 59   | K-CS-M7792-0-TT8 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 60   | K-CS-M7792-0-TT9 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 61   | K-CS-M7792-0-BD1 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 62   | K-CS-M7792-0-CR1 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 63   | K-CS-M7792-0-IRA | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 64   | K-CS-M7792-0-IRB | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 65   | K-CS-M7792-0-IRC | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 66   | K-CS-M7792-0-IRD | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 67   | K-CS-M7792-0-IRE | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 68   | K-CS-M7792-0-LSM | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 69   | K-CS-M7792-0-SD1 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 70   | K-CS-M7792-0-SD2 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 71   | K-CS-M7792-0-SD3 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 72   | K-CS-M7792-0-TD1 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 73   | K-CS-M7792-0-TD2 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 74   | K-CS-M7792-0-TD3 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 75   | K-CS-M7792-0-TD4 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 76   | K-CS-M7792-0-TD5 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 77   | K-CS-M7792-0-TD6 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 78   | K-CS-M7792-0-TD7 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |
| 79   | K-CS-M7792-0-TD8 | 1           |          | SCHEMATIC   |      | -         | - | - | - | - | A | A | A |   |  |  |  |

NOTES:

|                  |            |     |     |            | DD REV                 | A                         | B | C | D | E                 | F  | H | J |  |               |  |  |  |  |
|------------------|------------|-----|-----|------------|------------------------|---------------------------|---|---|---|-------------------|--|---|---|--|---------------|--|--|--|--|
| REVISION HISTORY |            |     |     |            | CONT. REVISION HISTORY |                           |   |   |   | MADE BY:<br>DATE: |  |   |   |  | d i g i t a l |  |  |  |  |
| ENG              | ECO NUMBER | REV | ENG | ECO NUMBER | REV                    | CHECKED BY:<br>DATE:      |   |   |   |                   | TITLE<br>DRAWING DIRECTORY                                   |   |   |  |               |  |  |  |  |
|                  |            |     |     |            |                        | DESIGN ENGINEER:<br>DATE: |   |   |   |                   | DEUNA PORT MODULE  |   |   |  |               |  |  |  |  |
|                  |            |     |     |            |                        | RESPONSIBLE ENG:<br>DATE: |   |   |   |                   |  |   |   |  |               |  |  |  |  |
|                  |            |     |     |            |                        | PRODUCTION ENG:<br>DATE:  |   |   |   |                   | SIZE   CODE   DOCUMENT NUMBER   REV.<br>K   DD   M7792-0   J |   |   |  |               |  |  |  |  |
|                  |            |     |     |            |                        |                           |   |   |   | SHEET 4 OF 4      |  |   |   |  | MKO           |  |  |  |  |

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COMPONENT SIDE VIEW



NOTES:

1. E14 & E15 ARE SPARE LOCATIONS.
2. UL RATING IS LPWR.

STEP 1 ↑ Y AXIS STEP 0 TIMES  
REPEAT → X AXIS STEP 0 TIMES

| CHK           | CHANGE NO | REV | DATE    | BY       | APP       |
|---------------|-----------|-----|---------|----------|-----------|
| M7792-TW5     | C         |     | 2-17-83 | T. WALSH | 20 MAY 83 |
| K. SARGENT    |           |     |         |          |           |
| D. GARDNER    | Q3183     | D   |         |          |           |
| K. SARGENT    |           |     |         |          |           |
| ECC M7792-MK7 | E         |     |         |          |           |
| M. LAWRENCE   |           |     |         |          |           |

|           |      |
|-----------|------|
| ETCH REV. | C-PI |
|-----------|------|

| SIGNATURES                     | DATE    | TITLE | DEUNA PORT MODULE |
|--------------------------------|---------|-------|-------------------|
| DRN. Paul J. Jolly             | 2-17-83 |       |                   |
| CHK'D. David H. Jolly          | 2-17-83 |       |                   |
| MECH. ENG.                     |         |       |                   |
| PROJ. ENG. T. Jolly            |         |       |                   |
| PROD. D. J. Jolly              |         |       |                   |
| SCALE 2/1                      |         |       |                   |
| SHT. 1 OF 1                    |         |       |                   |
| NEXT HIGHER ASSY. B-DD-M7792-0 |         |       |                   |

MKO 1 WO# 302333

|   |                  |   |
|---|------------------|---|
| 1 | 1772-2 TWO-      | C |
| 2 | 1 VALU-8 ZG10185 |   |
| 3 | R. SAUCENT       |   |
| 4 | <del>5.4.5</del> |   |

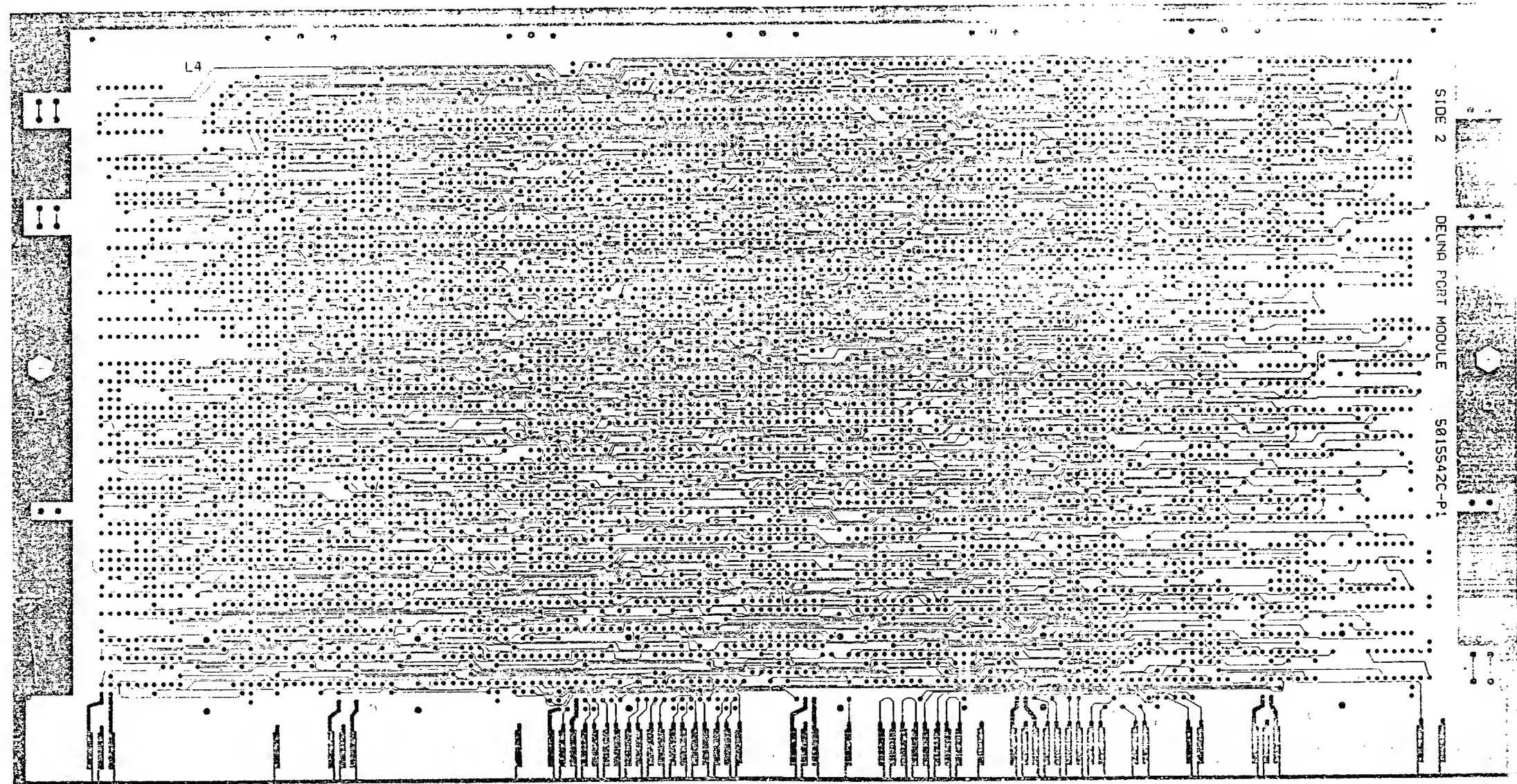
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
AND THE FOLLOWING TOLERANCES APPLY: FRACTIONS DECIMALS

DATE: MAY 1975 BY: J. E. C. CHKD: APP'D: MATERIAL: QUANTITY:

DO NOT SCALE DRAWING  
REMOVE BURRS AND  
BREAK SHARP CORNERS

MAY 1975  
J. E. C.  
E EC 5016542-0-0

PCB 834A1



SIDE 2

DEURA PORT MODULE

5015542C-P1

L4

0-0-2-5-5105 03

A

|                  |  |  |  |  |  |  |  |  |  |                  |  |   |  |
|------------------|--|--|--|--|--|--|--|--|--|------------------|--|---|--|
| ETCH CUT DRAWING |  |  |  |  |  |  |  |  |  | E EC 5015542-0-0 |  | C |  |
|                  |  |  |  |  |  |  |  |  |  | 2                |  | 2 |  |
|                  |  |  |  |  |  |  |  |  |  | 1                |  | 2 |  |



AUTOMATED BY PRTLST,4Q(50)

## P A R T S L I S T

SHEET A1 OF A3

| LINE | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV | DESCRIPTION                      | QTY | PER VARIATION | REFERENCE DESIGNATOR  |
|------|------|------------------|-------------|---------|----------------------------------|-----|---------------|---|
|      |      |                  |             |         |                                  | 00  |               |   |
|      |      |                  |             |         | VARIATION REVISION LEVEL:        | E4  |               |   |
| 1    | 77   | D-MD-5015542-0-0 | 5015542-00  | C       | DRILL & ETCH CUT                 | 1   |               |   |
| 2    | 1    |                  | 1001610-00  |         | .01 MFD 50V +80-20% Z5U CER      | 1   |               | C2  |
| 3    | 3    |                  | 1012084-01  |         | 8 MFD 25V +75-10% AL EL          | 6   |               | C4,C5,C6,C7,C8,C9   |
| 4    | 4    |                  | 1012784-00  |         | .047 MFD 50V +80-20% CER         | 46  |               | C10,C11,C12,C13,C14,C15,C16,C17,<br>C18,C19,C20,C21,C22,C23,C24,C25,<br>C26,C27,C28,C29,C30,C31,C32,C33,<br>C34,C35,C36,C37,C38,C39,C40,C41,<br>C42,C43,C44,C45,C46,C47,C48,C49,<br>C50,C51,C52,C53,C54,C55 |
| 5    | 2    |                  | 1010031-07  |         | 1 MFD 50V 10% M.POLYCARB         | 1   |               | C3  |
| 6    | 5    |                  | 1112689-00  |         | LED .8MCD@16MA VF=5V             | 7   |               | D1,D2,D3,D4,D5,D6,D7  |
| 7    | 65   |                  | 1209941-02  |         | PCB,HEADER 40PIN(2X20).100CC 90D | 2   |               | J1,J2   |
| 8    | 19   |                  | 1211164-06  |         | SW,DIP 10POS/1PST 5VDC100MA F    | 2   |               | E40,E62   |
| 9    | 79   | BLANK            |             |         | *** THIS ITEM IS NOT USED ***    | -   |               |   |
| 10   | 78   | BLANK            | 1212385-03  |         | *** THIS ITEM IS NOT USED ***    | -   |               |   |
| 11   | 80   |                  | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS   | 1   |               |   |
| 12   | 15   |                  | 1300005-01  |         | R NETWORK 13-1K 5.0 % 14PIN      | 2   |               | E32,E63   |
| 13   | 69   |                  | 1300229-00  |         | 100.0 .25 W 5.0 % CF             | 7   |               | R6,R9,R10,R13,R19,R21,R22   |
| 14   | 76   |                  | 1300247-00  |         | 120.0 .25 W 5.0 % CF             | 1   |               | R91   |
| 15   | 68   |                  | 1300295-00  |         | 330.0 .25 W 5.0 % CF             | 1   |               | R5  |
| 16   | 66   |                  | 1300365-00  |         | 1.0 K .25 W 5.0 % CF             | 9   |               | R1,R3,R4,R11,R14,R17,R18,R20,R70  |
| 17   | 74   |                  | 1300479-00  |         | 10.0 K .25 W 5.0 % CF            | 1   |               | R24   |
| 18   | 75   |                  | 1301322-00  |         | 180.0 .25 W 5.0 % CF             | 1   |               | R90   |
| 19   | 72   |                  | 1301425-00  |         | 300.0 .25 W 5.0 % CF             | 1   |               | R16   |
| 20   | 71   |                  | 1301890-00  |         | 560.0 .25 W 5.0 % CF             | 1   |               | R15   |
| 21   | 67   |                  | 1302388-00  |         | 2.0 K .25 W 5.0 % CF             | 1   |               | R2  |
| 22   | 73   |                  | 1303114-00  |         | 1.0 K .25 W 1.0 % RN55D-F10      | 1   |               | R23   |
| 23   | 70   |                  | 1317183-05  |         | 487.0 K .25 W 1.0 % RN55D-F10    | 2   |               | R7,R8   |
| 24   | 60   |                  | 1613120-00  |         | DELAY= 200NS,10TAPS              | 1   |               | E159  |
| 25   | 63   |                  | 1811660-36  |         | OSCILLATOR, XTAL 7.500 MHZ       | 1   |               | E163  |

|                  |             |     |                         |  |                  |                            |                                     |                                       |      |           |
|------------------|-------------|-----|-------------------------|--|------------------|----------------------------|-------------------------------------|---------------------------------------|------|-----------|
| REVISION HISTORY |             |     | BASIC PART NO: M7792    |  | DRN:             | H.DENSMORE                 | DATE: 02-APR-85                     | D I G I T A L                         |      |           |
| ENG:             | ECO NUMBER  | REV | SECTION A OF A          |  |                  |                            |                                     |                                       |      |           |
| ---              | INITIAL     | A   | SECTION VARIATION INDEX |  | CHK'D:           | <i>F.C.</i><br>F.CARBONE   | <i>12-APR-85</i><br>DATE: 02-APR-85 | TITLE PARTS LIST<br>DEUNA PORT MODULE |      |           |
| ITE              | M7792-TW002 | B   | [A] 00                  |  |                  |                            |                                     |                                       |      |           |
| ITE              | M7792-TW003 | C   | [B]                     |  |                  |                            |                                     |                                       |      |           |
| ITE              | M7792-TW004 | D   | [C]                     |  | DES.ENG:         | <i>M.M.</i><br>M.STECKLAIR | <i>4-12-85</i><br>DATE: 10-SEP-82   | DOCUMENT NUMBER                       |      |           |
| RS               | M7792-TW005 | E   | [D]                     |  |                  |                            |                                     | SIZE                                  | CODE | NUMBER    |
| KS               | M7792-TW006 | F   | [E]                     |  |                  |                            |                                     | ----                                  | ---- | ----      |
| ML               | M7792-MK007 | H   | [F]                     |  | RESP.ENG.:       | <i>M.L.</i><br>M.LAWRENCE  | <i>4-12-85</i><br>DATE: 02-APR-85   | K                                     | PL   | M7792-0-0 |
|                  |             |     | [H]                     |  |                  |                            |                                     |                                       |      |           |
|                  |             |     | [J]                     |  |                  |                            |                                     |                                       |      |           |
|                  |             |     | [K]                     |  | MFG.ENG.:        | W.BROOKE                   | DATE: 02-APR-85                     | RELEASE DATE: 11-APR-85               |      |           |
|                  |             |     | [L]                     |  |                  |                            |                                     |                                       |      |           |
|                  |             |     | [M]                     |  | ASSEMBLY NUMBER: |                            | TOP DOCUMENT NUMBER:                | FILE NAME:                            |      |           |
|                  |             |     | [N]                     |  | ID-UA-M7792-0-0  |                            | #K-DD-M7792-0                       | MK1192.PLS                            |      |           |
|                  |             |     |                         |  |                  |                            |                                     | EDIT                                  |      |           |
|                  |             |     |                         |  |                  |                            |                                     | 22                                    |      |           |

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PARTS LIST

SHEET A2 OF A3

| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN<br>REV | DESCRIPTION                 | QTY | PER VARIATION | REFERENCE DESIGNATOR             |
|------|------|--------------|-------------|------------|-----------------------------|-----|---------------|----------------------------------|
|      |      |              |             |            |                             |     |               |                                  |
|      |      |              |             |            | VARIATION REVISION LEVEL:   | 00  |               |                                  |
|      |      |              |             |            |                             | E4  |               |                                  |
| 26   | 61   |              | 1909705-00  | DEC        | 8881 NAND GATE-QUAD 2IN O   | 1   |               | E160                             |
| 27   | 45   |              | 1909712-00  | DEC        | 8242 COMPARATOR-4BIT N,     | 1   |               | E104                             |
| 28   | 56   |              | 1910532-00  |            | 74S00 NAND GATE-QUAD 2IN    | 1   |               | E149                             |
| 29   | 46   |              | 1915019-00  |            | 74S38 NAND BUFFER-QUAD 2IN  | 1   |               | E105                             |
| 30   | 42   |              | 1910534-00  |            | 74S04 INVERTER GATE-HEX 1I  | 1   |               | E100                             |
| 31   | 36   |              | 1910544-00  |            | 74S74 FF-D DUAL,EDGE TRIGG  | 7   |               | E92,E124,E136,E137,E139,E148,    |
|      |      |              |             |            |                             |     | CONT          | E166                             |
| 32   | 62   |              | 1910878-00  |            | 7427 NOR GATE-TRIPLE 3IN    | 1   |               | E161                             |
| 33   | 31   |              | 1910951-00  |            | 9602 ONE SHOT-DUAL          | 1   |               | E79                              |
| 34   | 17   |              | 1911573-00  |            | 74S280 PARITY GEN/CHKR,9BIT | 2   |               | E36,E47                          |
| 35   | 50   |              | 1911579-00  |            | 8641 TRANSCEIVER,BUS,QUA    | 2   |               | E118,E120                        |
| 36   | 29   |              | 1911676-00  |            | 74S139 DECODER-DUAL TWO-INP | 1   |               | E74                              |
| 37   | 64   |              | 1911944-00  |            | 555CN TIMER,FUNCT.BLOCK     | 1   |               | E167                             |
| 38   | 55   |              | 1912389-00  |            | 74S08 AND GATE-QUAD 2IN,PO  | 1   |               | E141                             |
| 39   | 13   |              | 1912647-00  |            | LS257 MUX 1 OF 2 (QUAD)     | 4   |               | E23,E45,E54,E65                  |
| 40   | 10   |              | 1912697-00  |            | LS174 FF-D HEX W/CLEAR      | 3   |               | E5,E143,E144                     |
| 41   | 33   |              | 1912799-00  |            | LS00 NAND-GATE-QUAD 2IN,P   | 4   |               | E85,E88,E115,E169                |
| 42   | 34   |              | 1912801-00  |            | LS02 NOR-GATE-QUAD 2IN      | 3   |               | E89,E106,E164                    |
| 43   | 35   |              | 1912803-00  |            | LS04 INVERTER GATE,HEX      | 3   |               | E90,E107,E134                    |
| 44   | 26   |              | 1912805-00  |            | LS08 AND GATE-QUAD 2IN,PO   | 6   |               | E71,E113,E119,E121,E132,E135     |
| 45   | 28   |              | 1912807-00  |            | LS10 NAND GATE-TRIPLE 3IN   | 2   |               | E73,E108                         |
| 46   | 48   |              | 1912810-00  |            | LS20 NAND GATE-DUAL 4IN     | 2   |               | E114,E122                        |
| 47   | 44   |              | 1912811-00  |            | LS21 AND GATE-DUAL 4IN,PO   | 1   |               | E103                             |
| 48   | 49   |              | 1912813-00  |            | LS27 NOR GATE-TRIPLE 3IN    | 1   |               | E116                             |
| 49   | 30   |              | 1912816-00  |            | LS32 OR GATE-QUAD 2IN,POS   | 4   |               | E78,E91,E109,E150                |
| 50   | 20   |              | 1912824-00  |            | LS74 FF-D DUAL,EDGE TRIGG   | 7   |               | E41,E99,E128,E138,E146,E147,E168 |
| 51   | 25   |              | 1912842-00  |            | LS138 DECODER-THREE INPUT,  | 5   |               | E58,E75,E76,E77,E140             |
| 52   | 53   |              | 1912845-00  |            | LS153 MUX 1 OF 4 (DUAL)     | 7   |               | E129,E130,E153,E155,E157,E158,   |
|      |      |              |             |            |                             |     | CONT          | E171                             |
| 53   | 38   |              | 1912848-00  |            | LS158 MUX 1 OF 2 (QUAD)     | 1   |               | E95                              |
| 54   | 57   |              | 1912851-00  |            | LS169 COUNTER,SYNCH. UP/DO  | 1   |               | E151                             |
| 55   | 12   |              | 1912854-00  |            | LS193 COUNTER,SYNCHR,4BIT,  | 14  |               | E12,E13,E26,E27,E35,E46,E55,E57, |
|      |      |              |             |            |                             |     | CONT          | E59,E68,E69,E70,E127,E142        |
| 56   | 16   |              | 1912863-00  |            | LS273 FF-D OCTAL W/CLEAR    | 2   |               | E34,E83                          |
| 57   | 58   |              | 1912864-00  |            | LS279 LATCH,QUAD-S-R        | 1   |               | E152                             |
| 58   | 52   |              | 1913462-00  |            | 74S240 OCTAL BUFFER,INVERTI | 1   |               | E126                             |
| 59   | 40   |              | 1913671-00  |            | 74S374 FF-D,OCTAL,TRI STATE | 2   |               | E97,E123                         |
| 60   | 24   |              | 1913888-00  | DC         | 102A EQUALS CHECKER 8BIT    | 1   |               | E51                              |
| 61   | 18   |              | 1914085-00  |            | 74S260 NOR GATE-DUAL,POS    | 1   |               | E37                              |
| 62   | 6    |              | 1914214-00  |            | LS374 FF-D OCTAL EDGE TRIG  | 8   |               | E1,E6,E16,E17,E20,E22,E24,E29    |
| 63   | 54   |              | 1914438-00  | DC         | 013 UNIBUS INTERRUPT-BIP    | 2   |               | E131,E145                        |
| 64   | 59   |              | 1914451-00  |            | LS393 COUNTER,BINARY,4BIT   | 6   |               | E154,E156,E162,E165,E170,E172    |
| 65   | 32   |              | 1914768-00  | C          | 67401J MEMORY FIFO,SERIAL   | 2   |               | E84,E87                          |
| 66   | 14   |              | 1914845-00  |            | 2918 FF-D QUAD TRI-STATE    | 1   |               | E28                              |
| 67   | 9    |              | 1915193-00  |            | LS244 DRIVER,LINE,OCTAL,TR  | 21  |               | E4,E8,E9,E10,E18,E19,E21,E25,    |
|      |      |              |             |            |                             |     | CONT          | E30,E31,E33,E38,E49,E52,E61,E64, |
|      |      |              |             |            |                             |     | CONT          | E66,E67,E80,E81,E94              |
| 68   | 8    |              | 1915219-00  |            | LS373 FF-D OCTAL-TRANSPARE  | 2   |               | E3,E7                            |

|               |  |       |                   |                |      |      |                 |     |
|---------------|--|-------|-------------------|----------------|------|------|-----------------|-----|
| D I G I T A L |  | TITLE | DEUNA PORT MODULE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|               |  |       |                   |                | K    | PL   | M7792-0-0       | H   |

AUTOMATED BY PRTLST.4Q(50)

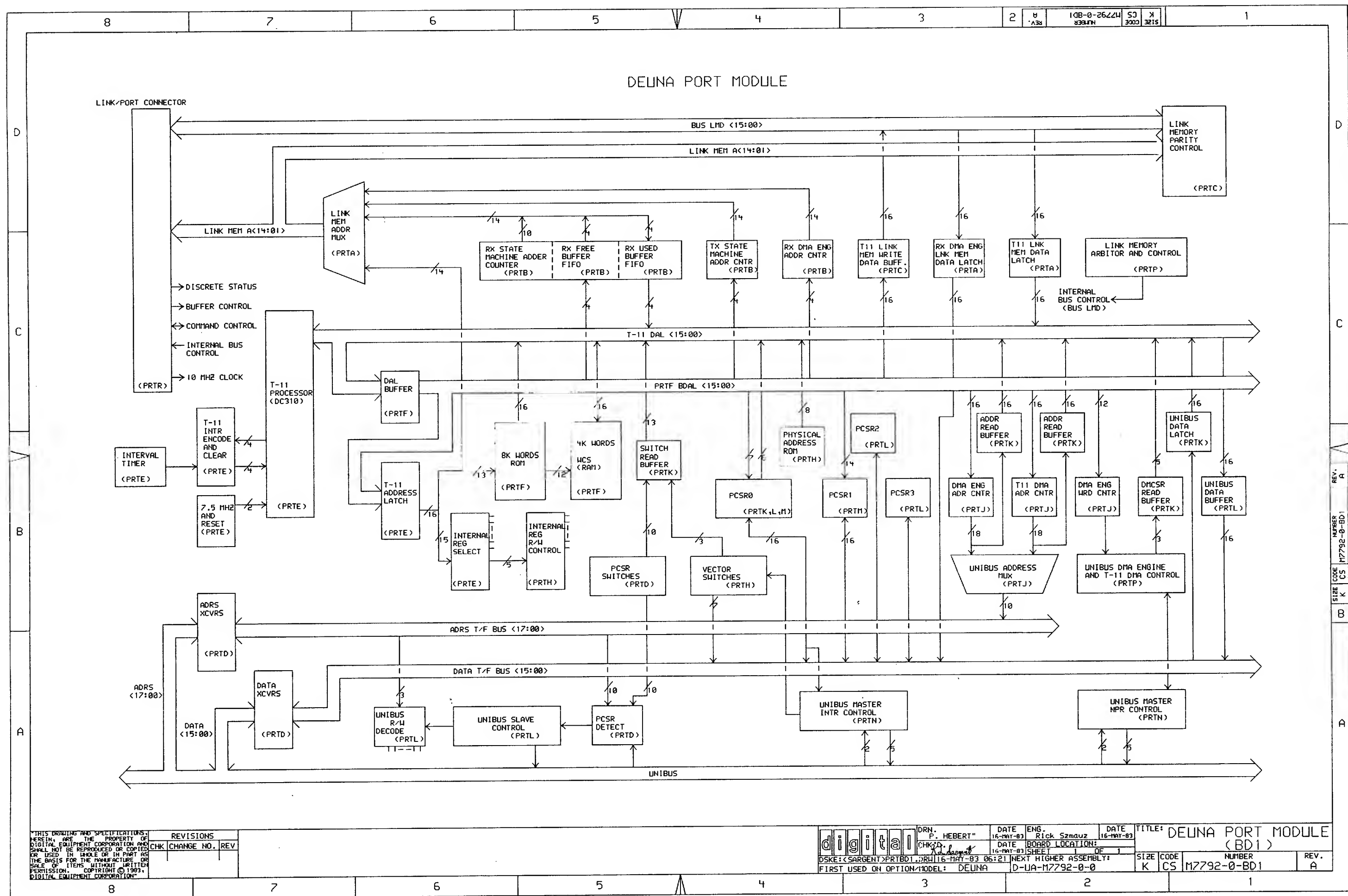
PARTS LIST

SHEET A3 OF A3

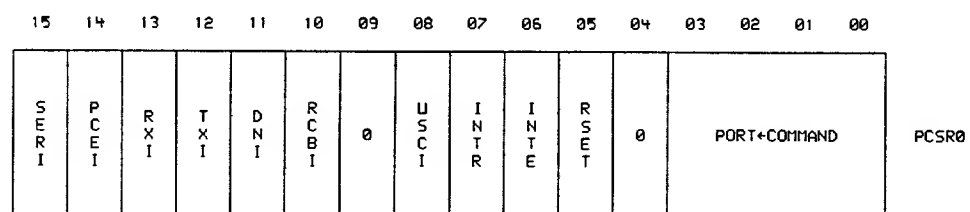
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|------|------|--------------|-------------|---------------|----------------------------|---------------------------|---------------|----------------------|
|      |      |              |             | REV           |                            | 00                        |               |                      |
|      |      |              |             |               |                            | VARIATION REVISION LEVEL: | E4            |                      |
| 69   | 37   |              | 1915932-00  |               | LS125 BUFFER,QUAD BUS      | 1                         |               | E93                  |
| 70   | 23   |              | 1919015-00  | DC            | 021 BUS TRANSCEIVER,20PI   | 4                         |               | E48,E60,E102,E117    |
| 71   | 39   |              | 2117311-01  |               | T-11 MICROPROCESSOR W/LSI- | 1                         |               | E96                  |
| 72   | 27   |              | 2118054-03  |               | 16K MOS RAM 55NS 2         | 2                         |               | E72,E86              |
| 73   | 22   |              | 2119250-00  |               | 4KX4 STATIC RAM 55NS       | 4                         |               | E44,E56,E82,E110     |
| 74   | 11   |              | 23365A1-00  | A1-09         |                            | 1                         |               | E11                  |
| 75   | 41   |              | 23366A1-00  | A1-07         |                            | 1                         |               | E133                 |
| 76   | 51   |              | 23367A1-00  | A1-07         |                            | 1                         |               | E53                  |
| 77   | 21   |              | 23992A9-00  | A9-01         |                            | 1                         |               | E98                  |
| 78   | 7    |              | 23090C6-00  | C6-01         |                            | 1                         |               | E125                 |
| 79   | 43   |              | 23229E4-00  | E4-06         |                            | 1                         |               | E43                  |
| 80   | 47   |              | 23228E4-00  | E4-06         |                            | 1                         |               | E42                  |
| 81   | 81   |              | 9009000-00  | EYELET,ROLLED | 0.1210DX0.156              | 10                        |               |                      |
| 82   | 82   |              | 23119J5-00  | J5-01         | PAL,LOGIC DRIV             | 2                         |               | E2,E39               |
| 83   | 83   |              | 23118J5-00  | J5-01         | PAL,LOGIC DRIV             | 1                         |               | E50                  |
| 84   | 84   |              | 23070K3-00  | K3-01         | PAL,REG, CONT              | 1                         |               | E101                 |
| 85   | 85   |              | 23037K5-00  | K5-01         |                            | 1                         |               | E112                 |
| 86   | 86   |              | 23038K5-00  | K5-01         |                            | 1                         |               | E111                 |
| 87   | 87   |              | 1215006-02  | SKT,IC        | 16PIN DIP TIN SOLD         | 1                         |               | XE11                 |
| 88   | 88   |              | 1311422-00  | 178.0         | .25 W 1.0 & RN55D-F10      | 4                         |               | R92,R94,R95,R97      |
| 89   | 89   |              | 1305125-00  | 383.0         | .25 W 1.0 & RN55D-F10      | 2                         |               | R93,R96              |
| 90   | 90   |              | 9107256-11  | TUBING,TEFLON | .027ID                     | A/R                       |               |                      |
| 91   | 91   |              | 9105740-55  | WIRE(WRAP)    | 30AWG KYNAR UL14           | A/R                       |               |                      |

|         |  |  |                   |  |                |  |      |      |                 |     |
|---------|--|--|-------------------|--|----------------|--|------|------|-----------------|-----|
| DIGITAL |  |  | TITLE             |  | SECTION A OF A |  | SIZE | CODE | DOCUMENT NUMBER | REV |
|         |  |  | DEUNA PORT MODULE |  |                |  | K    | PL   | M7792-0-0       | H   |





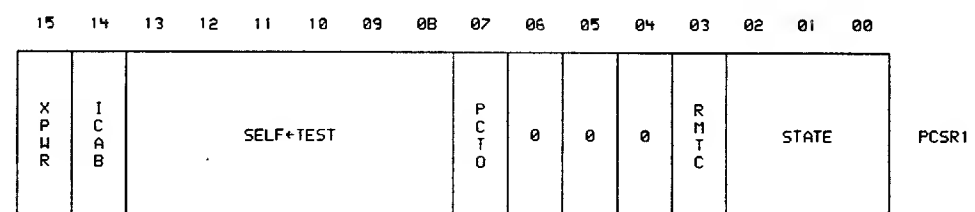
# PORT CONTROL AND STATUS REGISTER 0 (PCSR0)



- BITS <3:0> PORT COMMAND
- ZERO
- RESET
- INTERRUPT ENABLE
- INTERRUPT SUMMARY
- UNSOLICITED STATE CHANGE INTERRUPT
- ZERO
- RECEIVER BUFFER UNAVAILABLE INTERRUPT
- DONE INTERRUPT
- TRANSMIT RING INTERRUPT
- RECEIVE RING INTERRUPT
- PORT COMMAND ERROR INTERRUPT
- STATUS ERROR INTERRUPT

(PRTK<sub>1</sub>L<sub>1</sub>M)

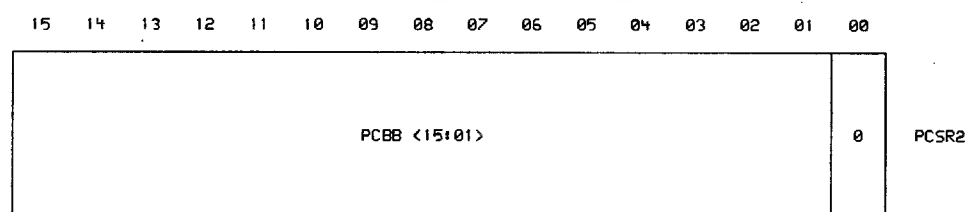
# PORT CONTROL AND STATUS REGISTER 1 (PCSR1)



- DEUNA STATE
- REMOTE CONSOLE RESERVED
- ZERO
- ZERO
- ZERO
- PORT COMMAND TIMEOUT
- SELF TEST ERROR CODE
- PORT/LINK CABLING
- TRANSCIEIVER POWER

(PRTM)

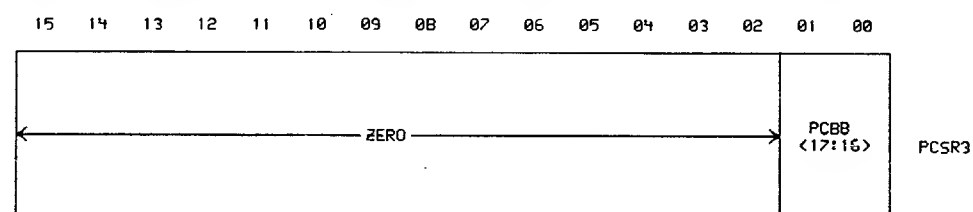
# PORT CONTROL AND STATUS REGISTER 2 (PCSR2)



- PORT CONTROL BLOCK BASE  
BITS <15:01> R/W

(PRTL)

# PORT CONTROL AND STATUS REGISTER 3 (PCSR3)



- PORT CONTROL BLOCK BASE  
BITS <17:16> R/W

- ZERO  
BITS <15:02>

(PRTL)

## UNIBUS PORT CONTROL & STATUS REGISTERS (PCSR0-3)

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|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

**digital**

DRN. PAUL HEBERT  
CHKD. *[Signature]*

DATE 06-MAY-83  
DATE 06-MAY-83

ENG. Rick Szmaz  
BOARD LOCATION: 1 OF 1

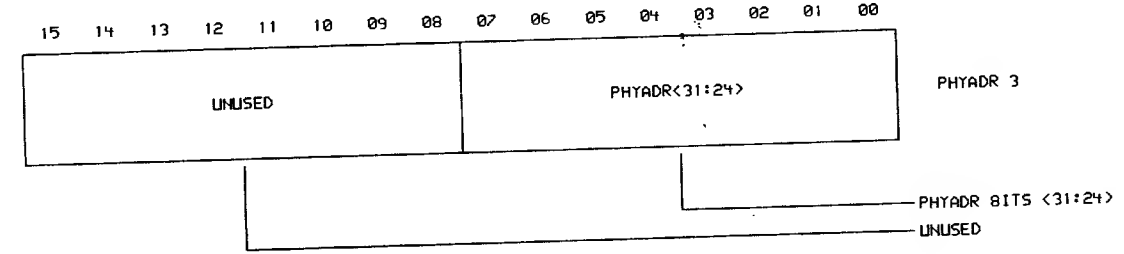
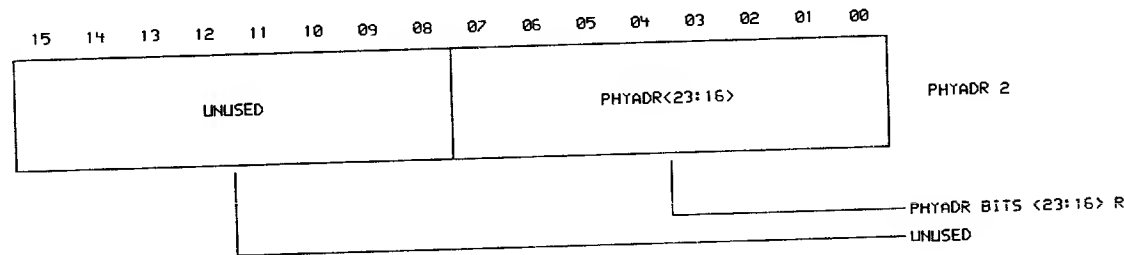
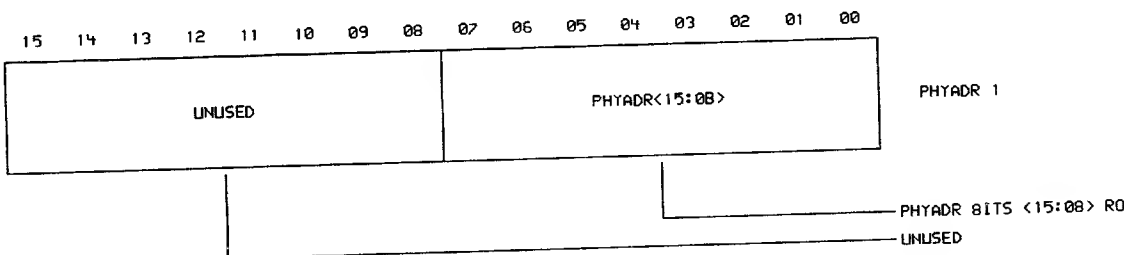
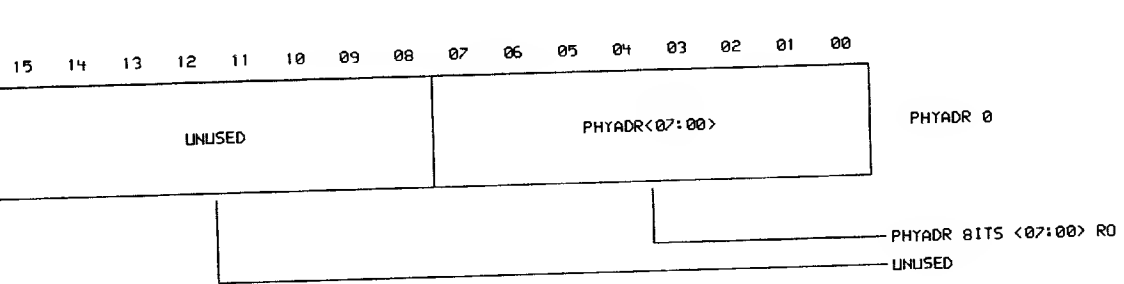
DATE 06-MAY-83  
SHEET 1 OF 1

TITLE: DEUNA PORT MODULE  
(CR1)

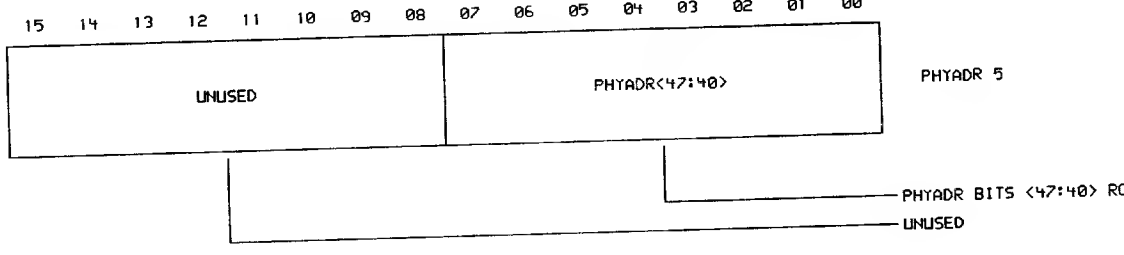
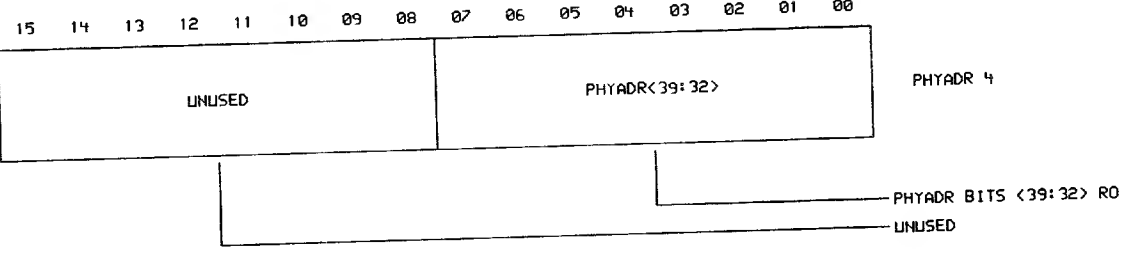
DSKE: <SARGENT>PRTCR1.DRW 06-MAY-83 07:01 NEXT HIGHER ASSEMBLY:  
FIRST USED ON OPTION/MODEL: DEUNA D-UA-M7792-0-0

SIZE CODE K CS M7792-0-CR1  
NUMBER  
REV. A

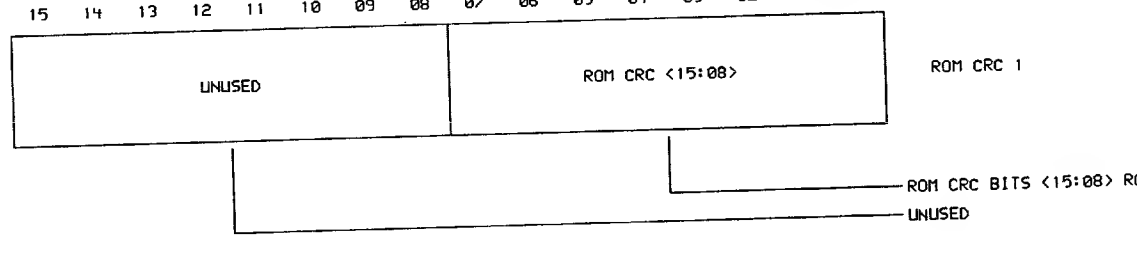
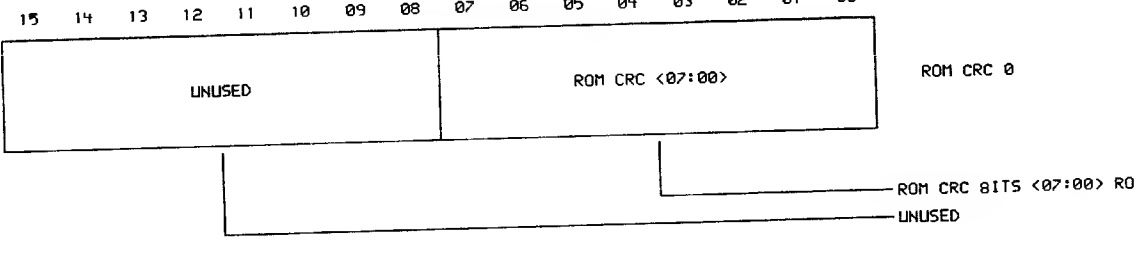
PHYADR (PHYSICAL ADDRESS REGISTER BIT CONFIGURATION)



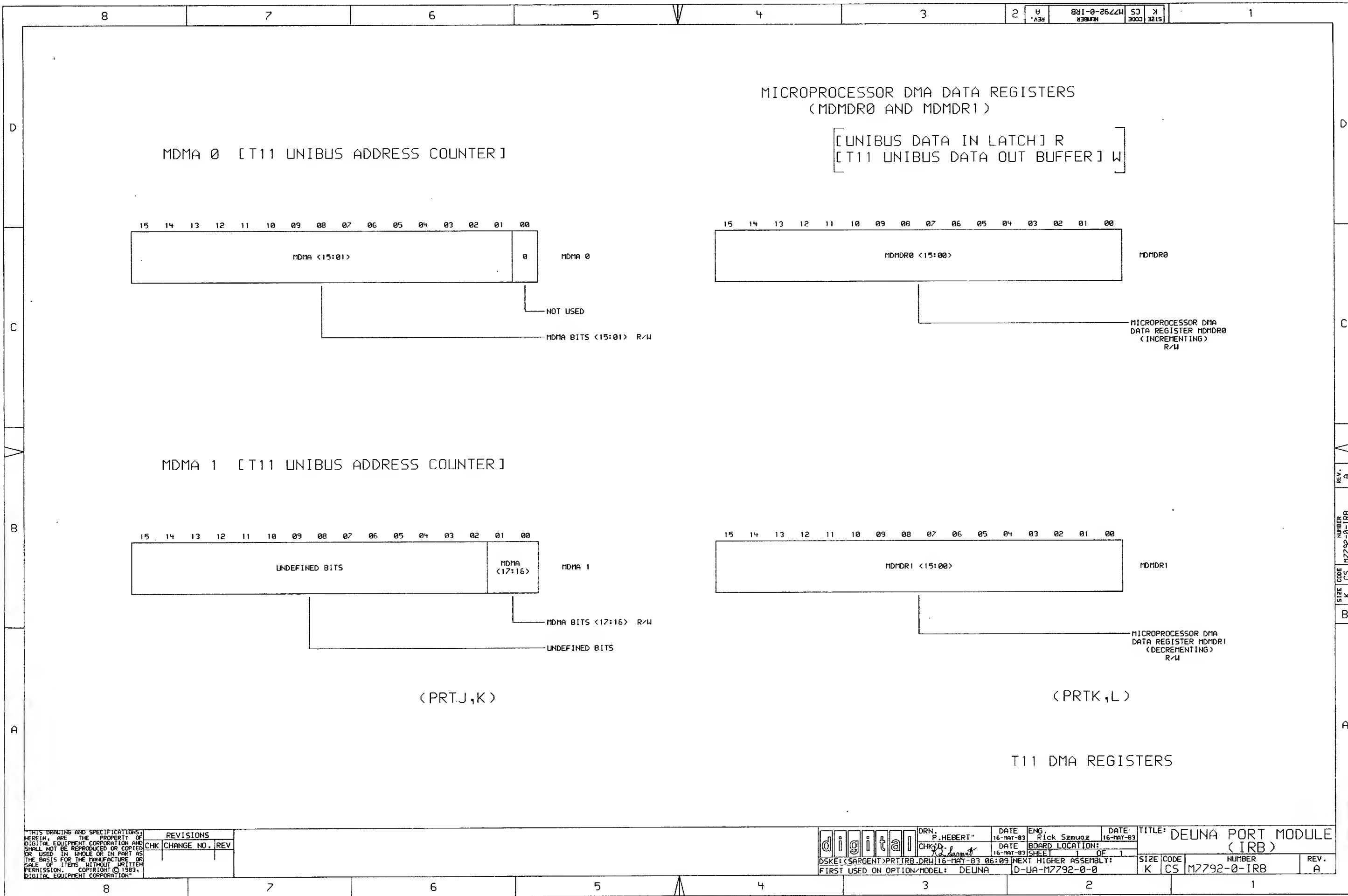
RO = READ ONLY

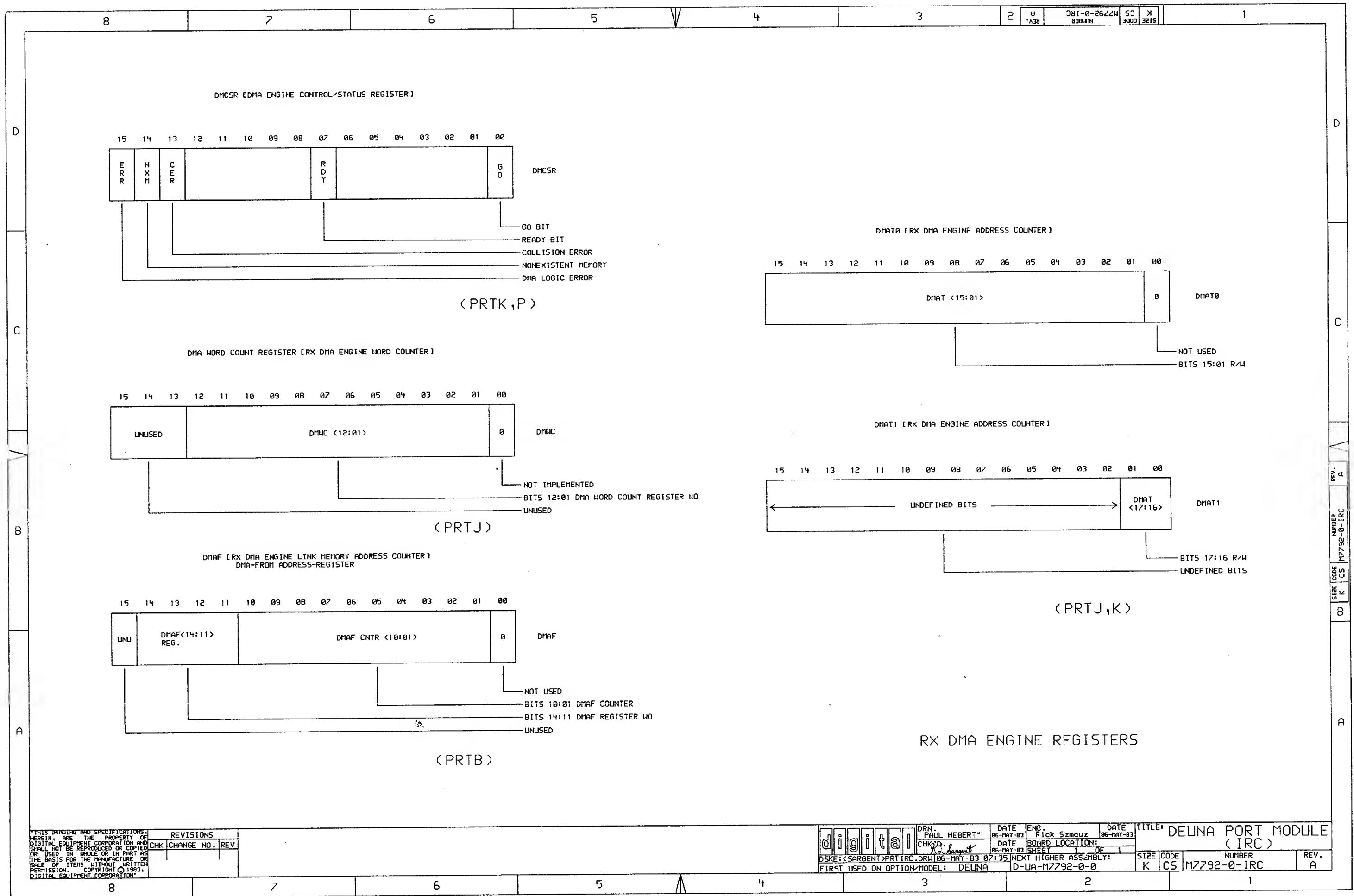


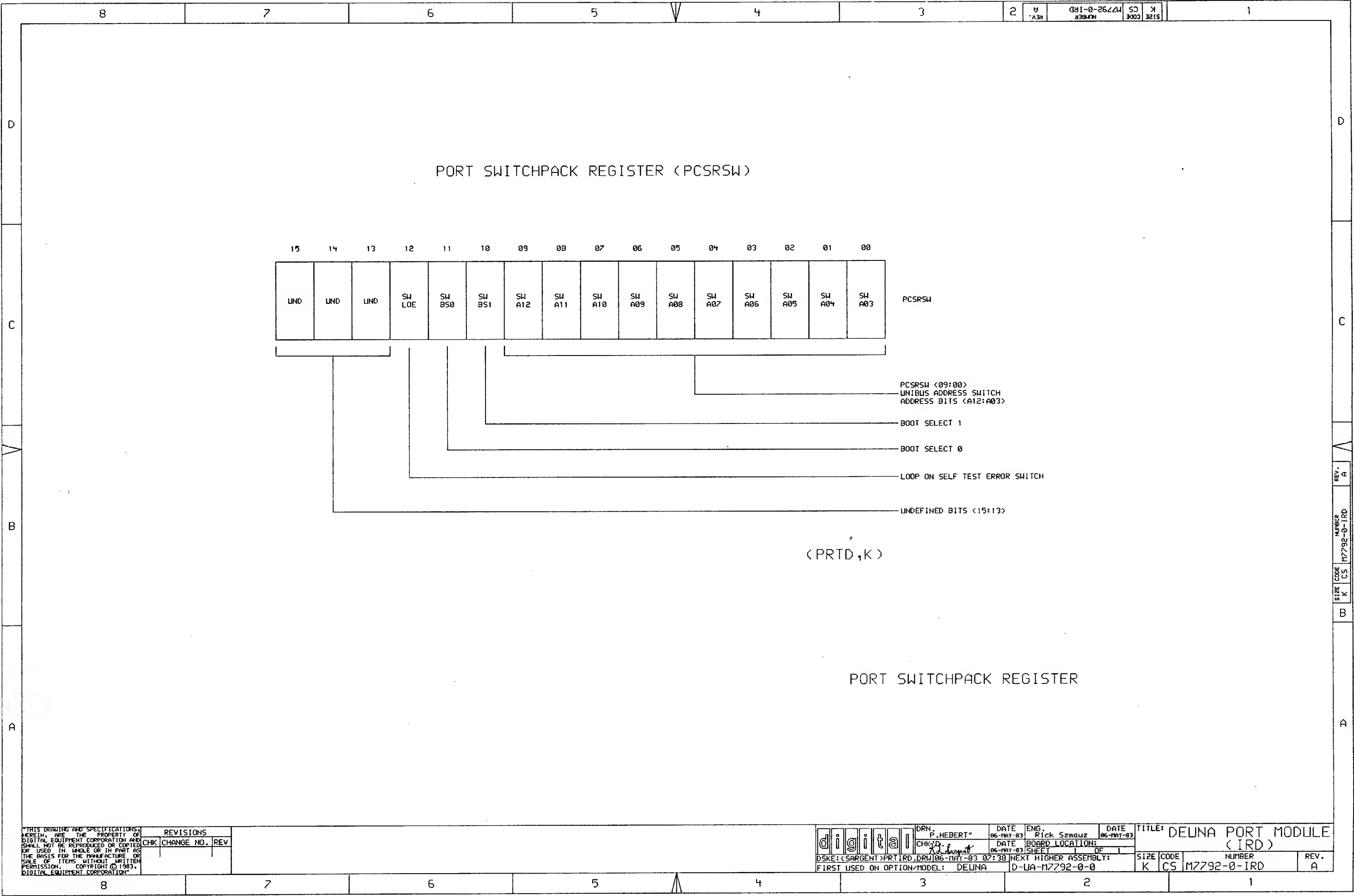
ROM CRC (READ ONLY MEMORY CYCLIC REDUNDANCY CHECK)



EHTERNET PHYSICAL ADDRESS ROM - (PRTH)







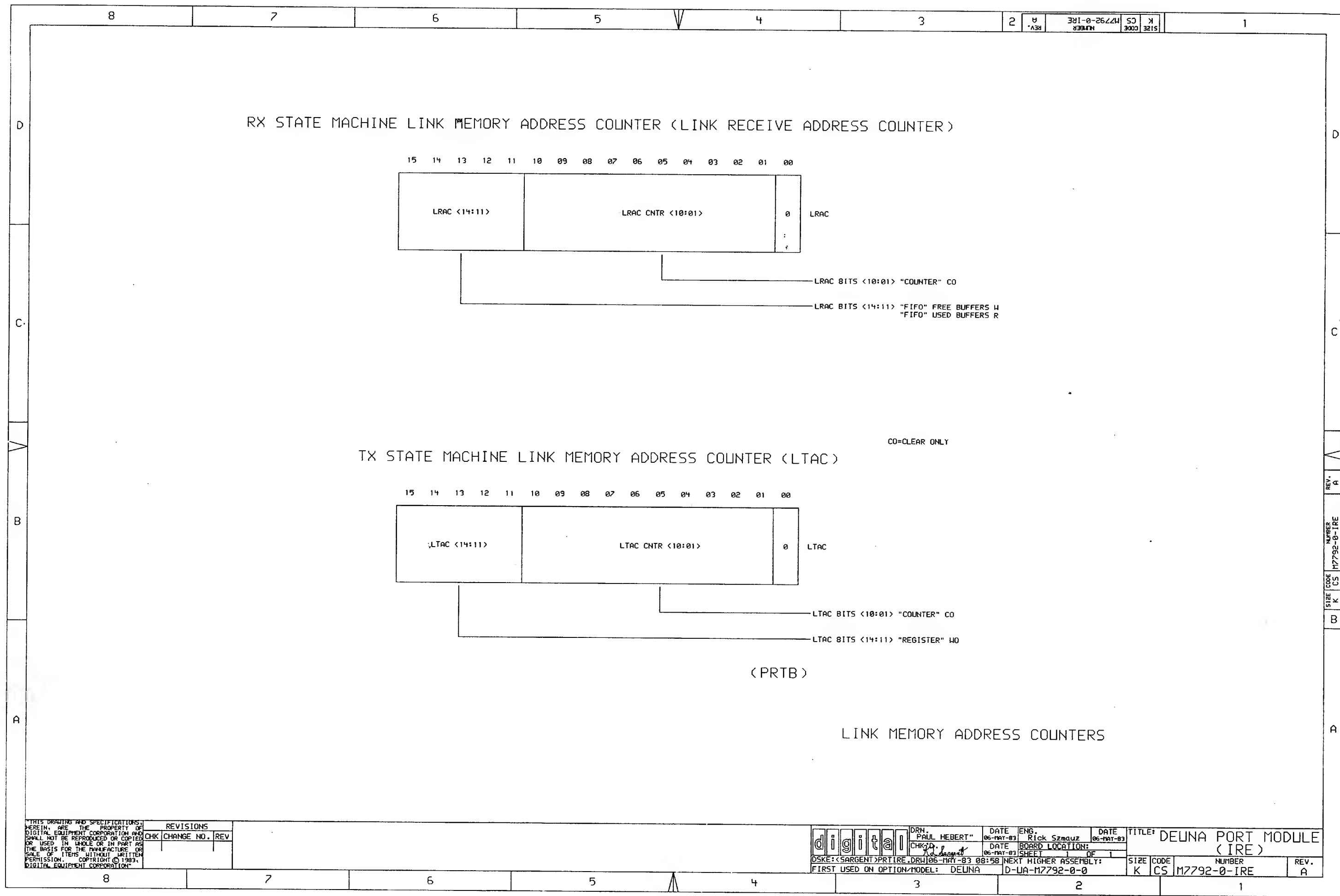
REV. A

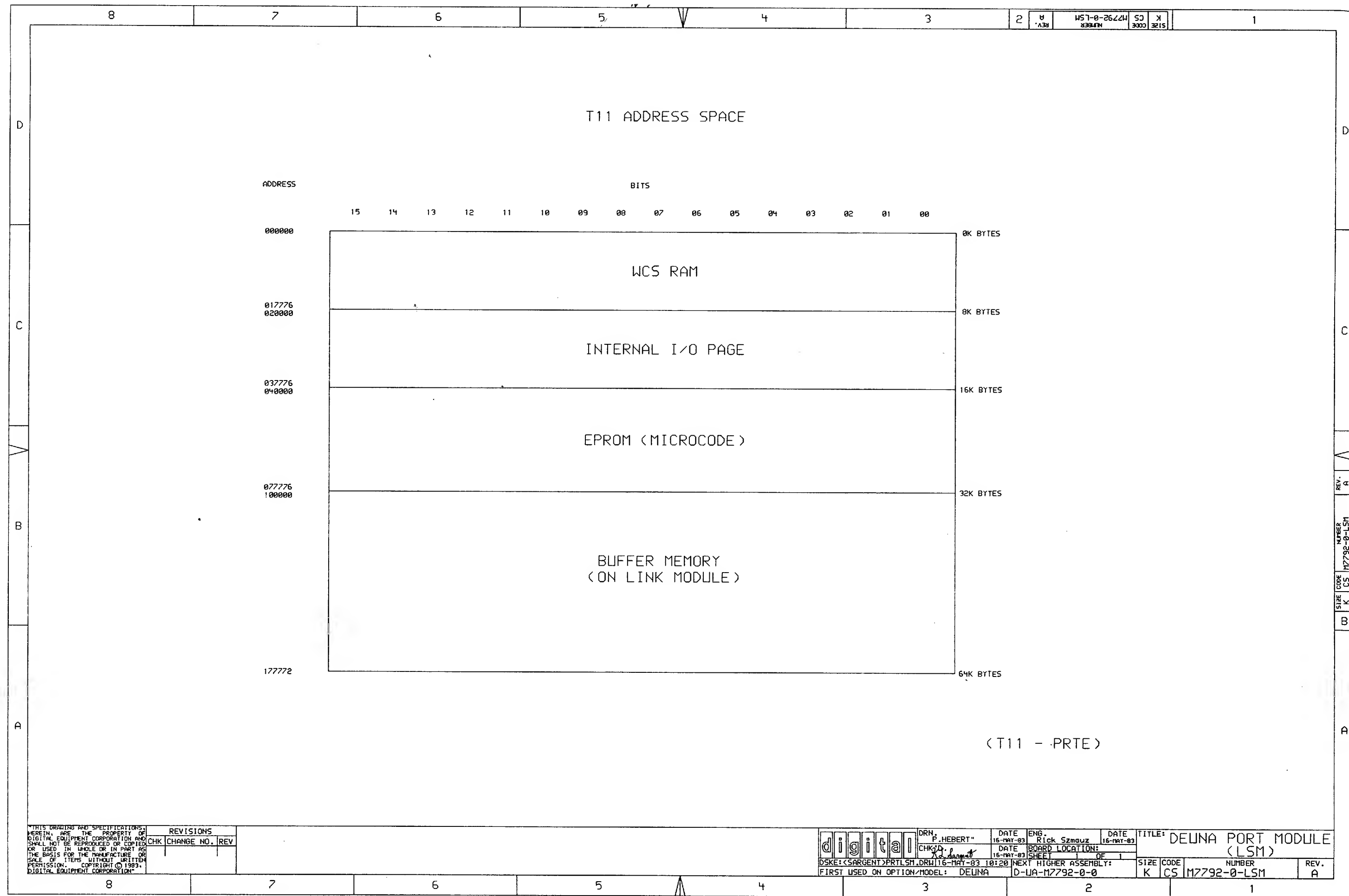
NUMBER M7792-0-IRD

SIZE K

CODE CS

B

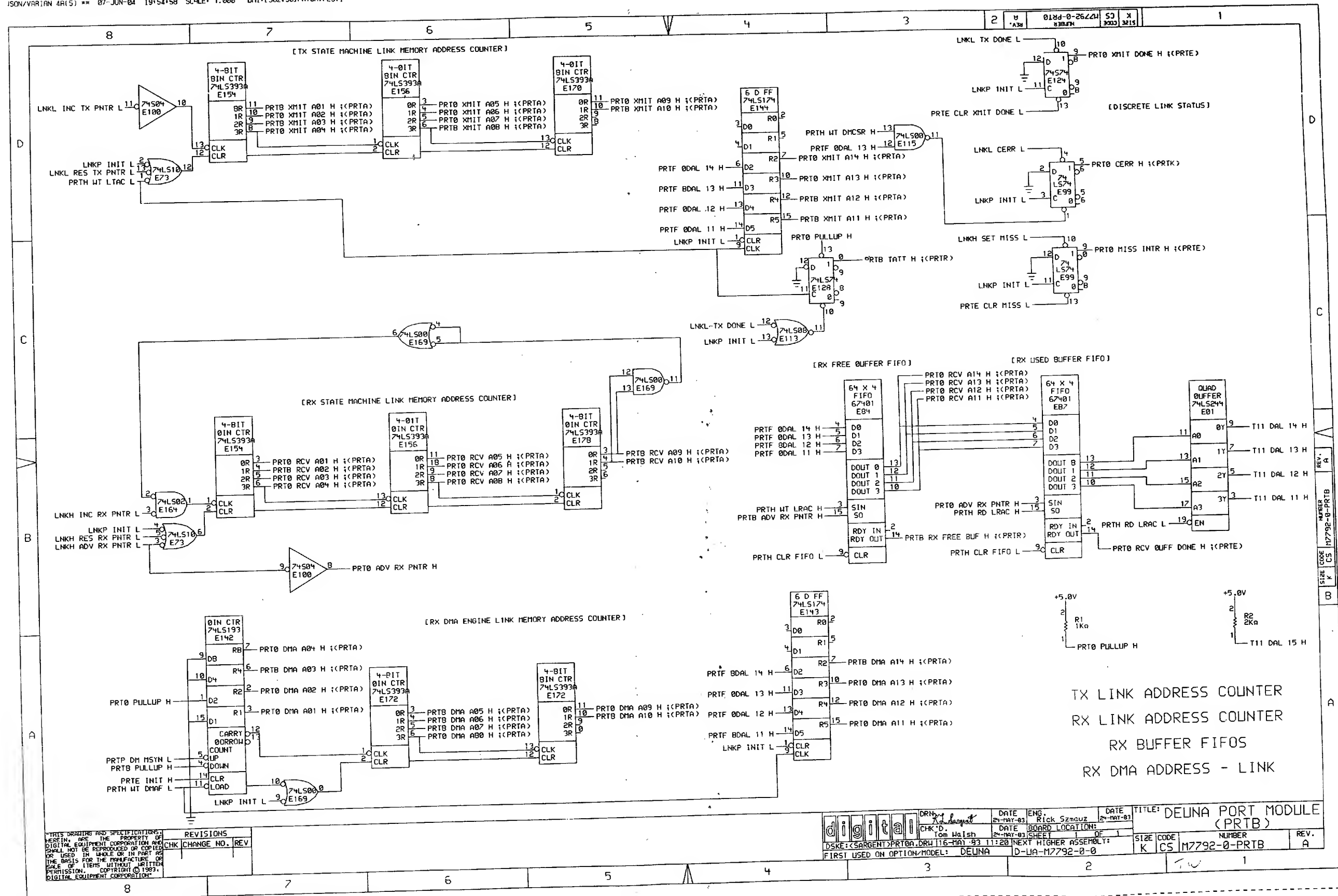








Time



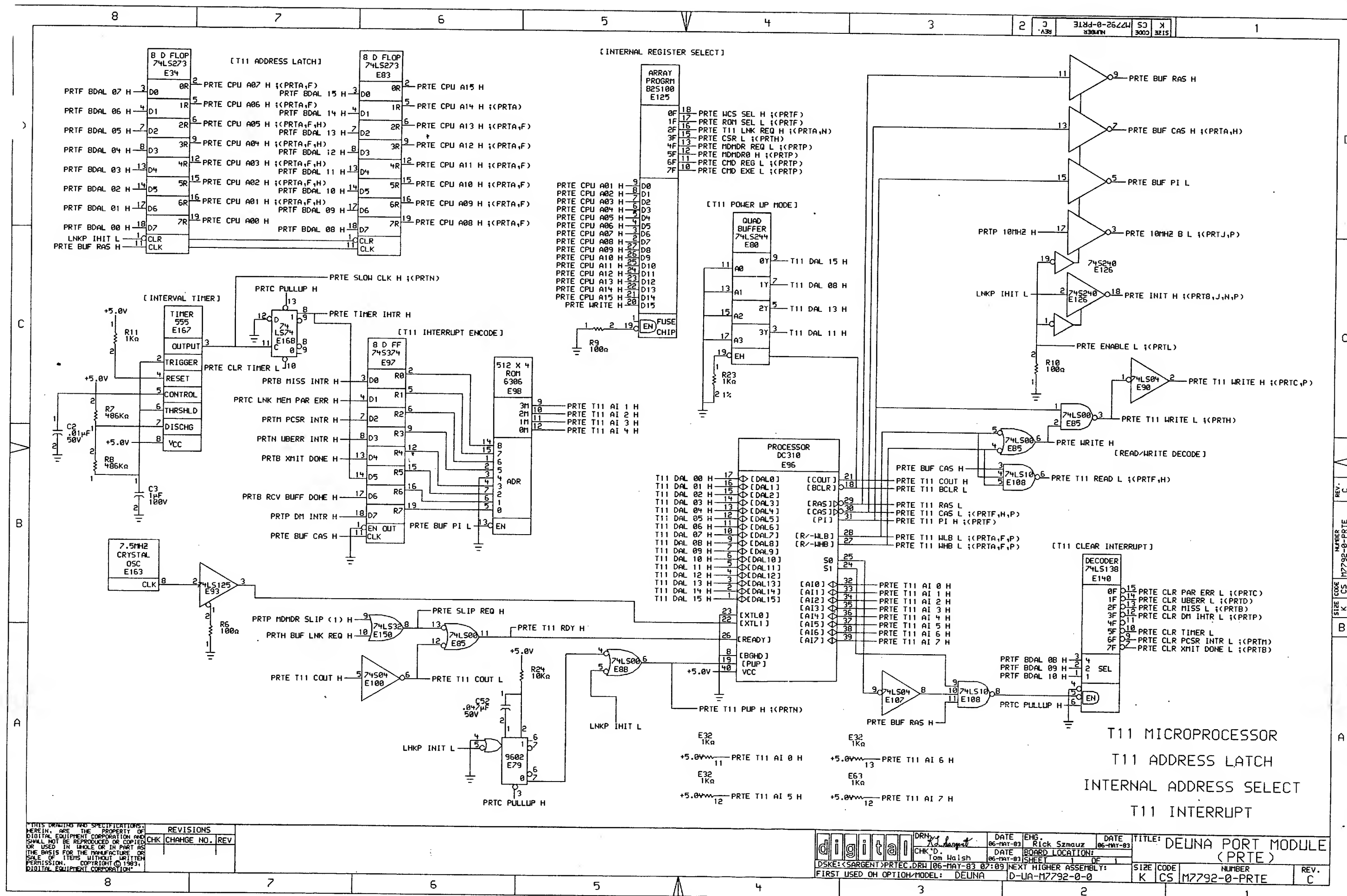
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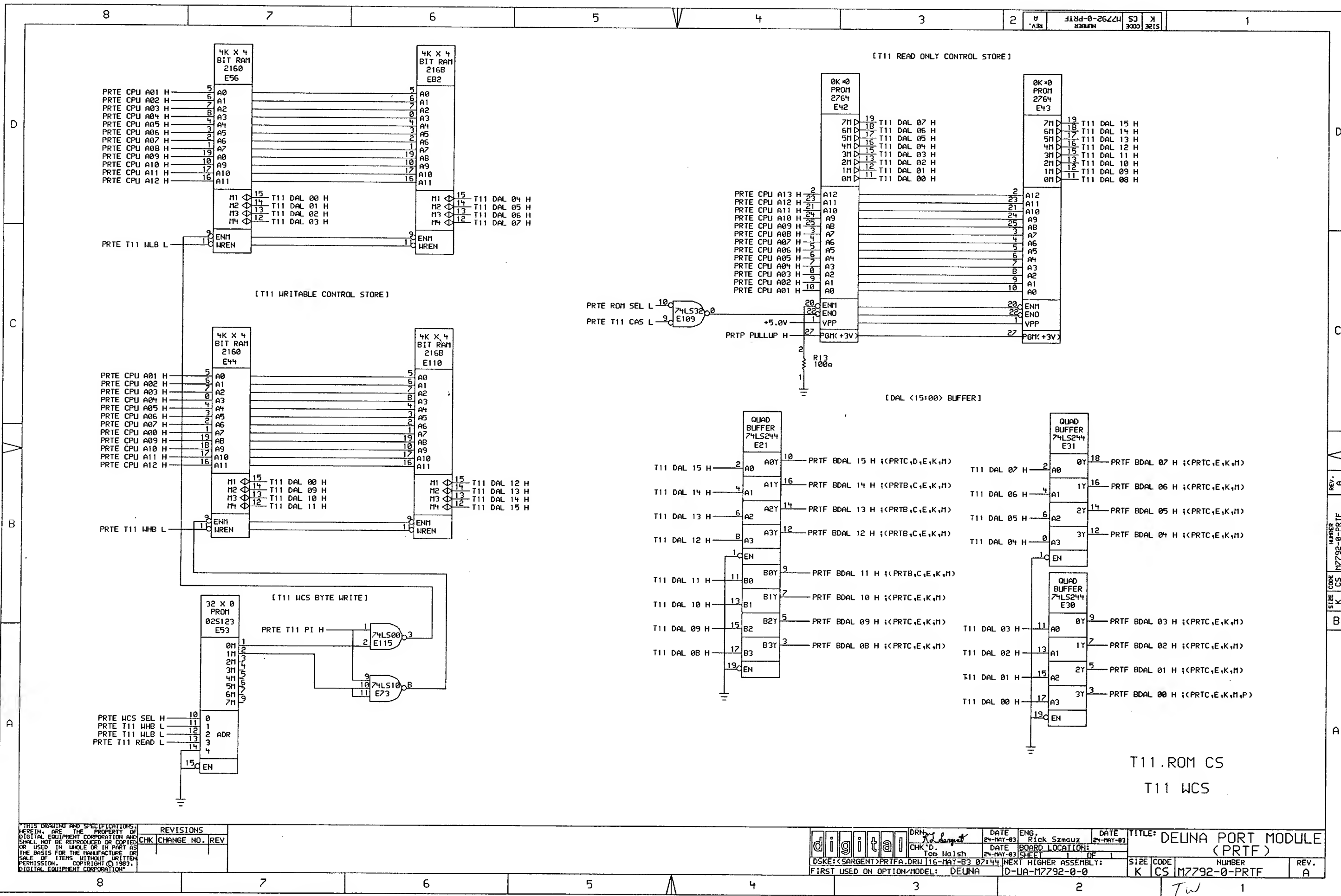
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| CHK'D: Tom Walsh                       | DATE: 24-MAY-83                      | BOARD LOCATION: 1    | OF: 1           | SIZE CODE: K CS                 |
| DSKE:CSARGENT.PRTB.DRW116-MAY-83 11:20 | NEXT HIGHER ASSEMBLY: D-LA-M7792-0-0 | NUMBER: M7792-0-PRTB | REV: A          |                                 |
| FIRST USED ON OPTION/MODEL: DEUNA      |                                      |                      |                 |                                 |







T11 MICROPROCESSOR  
T11 ADDRESS LATCH  
INTERNAL ADDRESS SELECT  
T11 INTERRUPT



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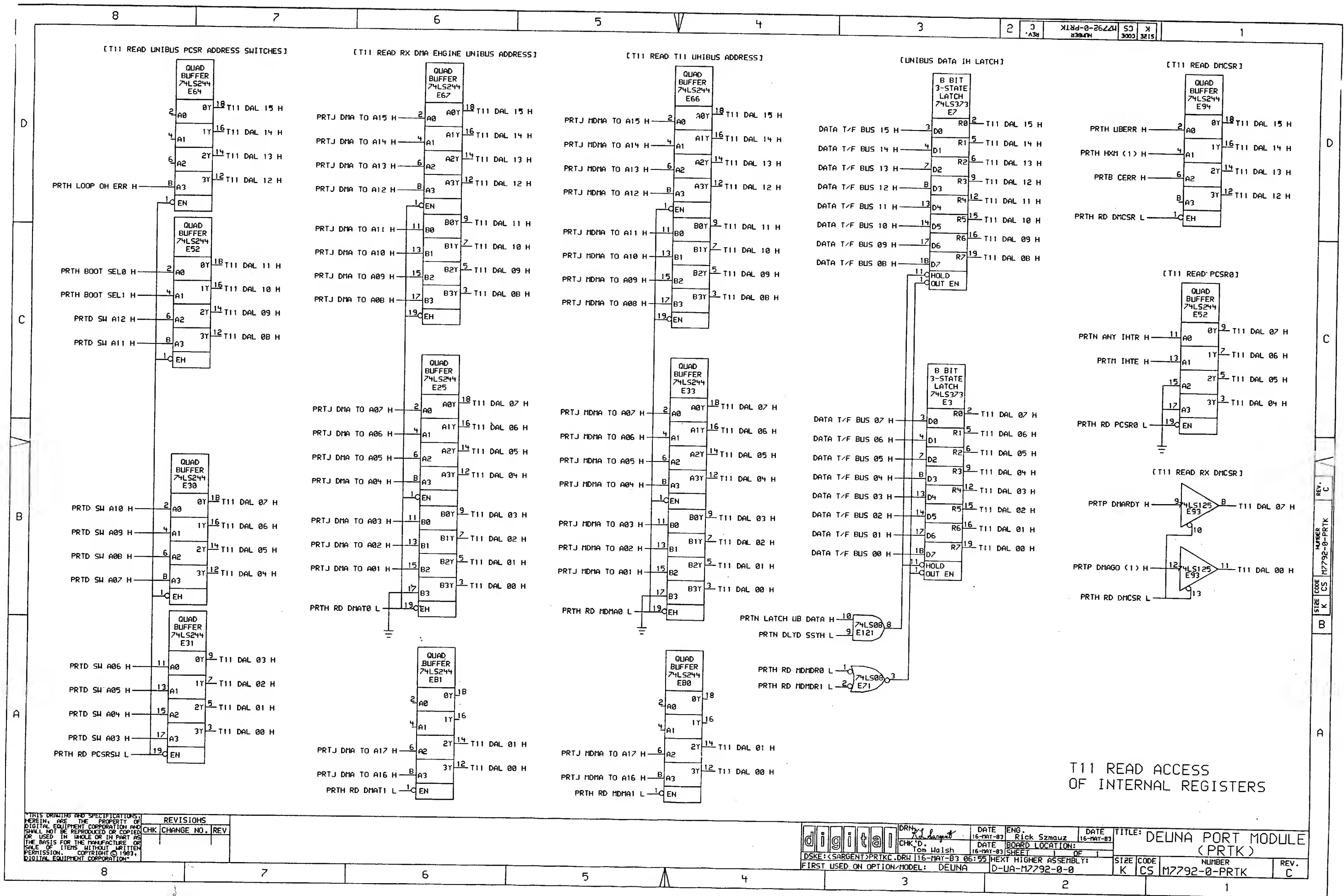
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| CHK       | CHANGE NO. | REV |
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|---|-----------------------|-----------------|-------------------|-----------------|---------------------------------|----------|
| digital   | DRN: <i>Tom Walsh</i> | DATE: 24-MAY-83 | ENG: Rick Szmauz  | DATE: 24-MAY-83 | TITLE: DEUNA PORT MODULE (PRTF) |          |
|   | CHK: D.               | DATE: 24-MAY-83 | BOARD LOCATION: 1 | OF: 1           | SIZE: K                         | CODE: CS |
| DSKE: <SARGENT>PRTFA.DRW 116-MAY-83 07:44 NEXT HIGHER ASSEMBLY: FIRST USED ON OPTION MODEL: DEUNA |                       |                 |                   |                 | NUMBER: M7792-0-PRTF            | REV: A   |

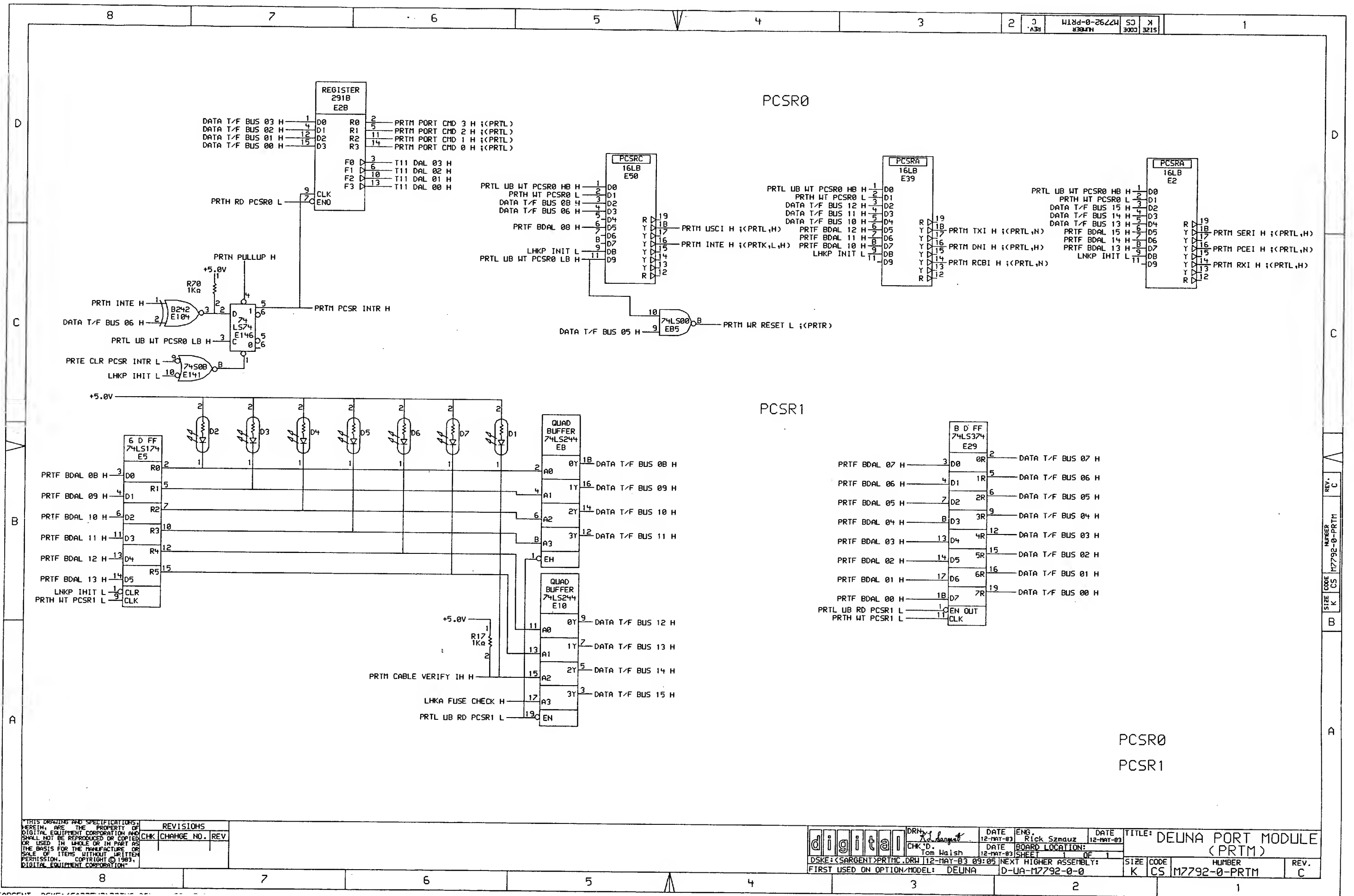


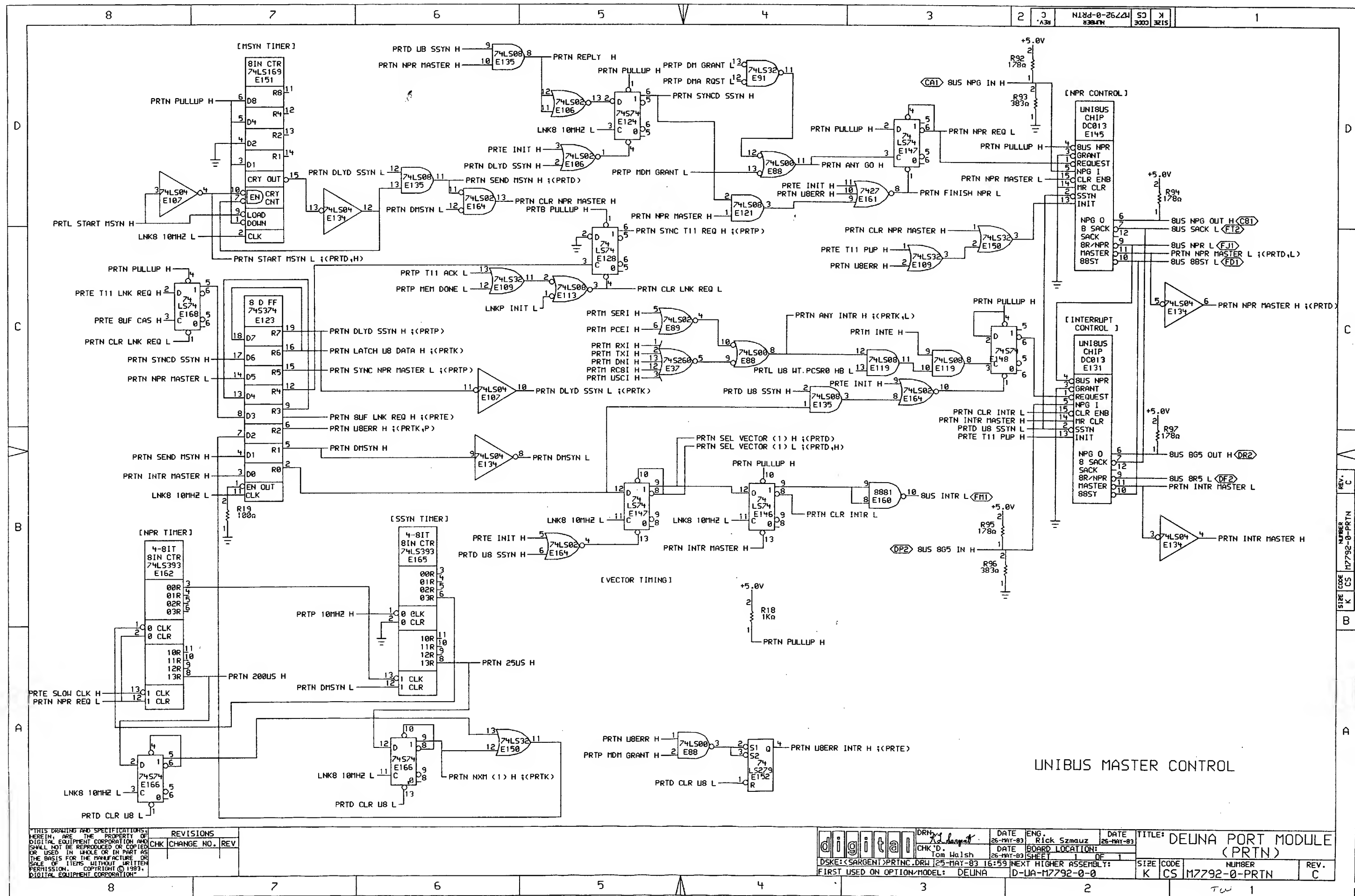


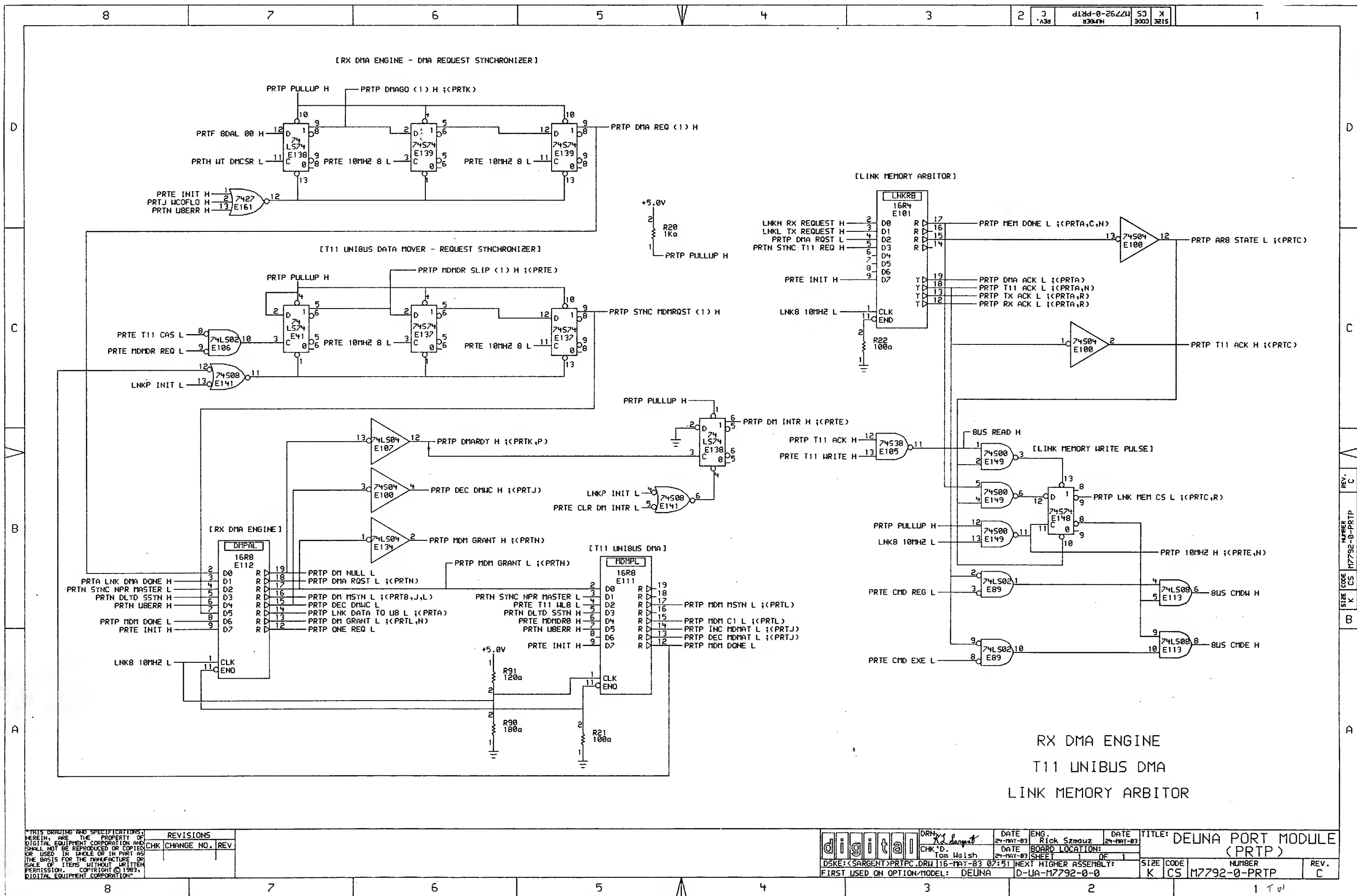


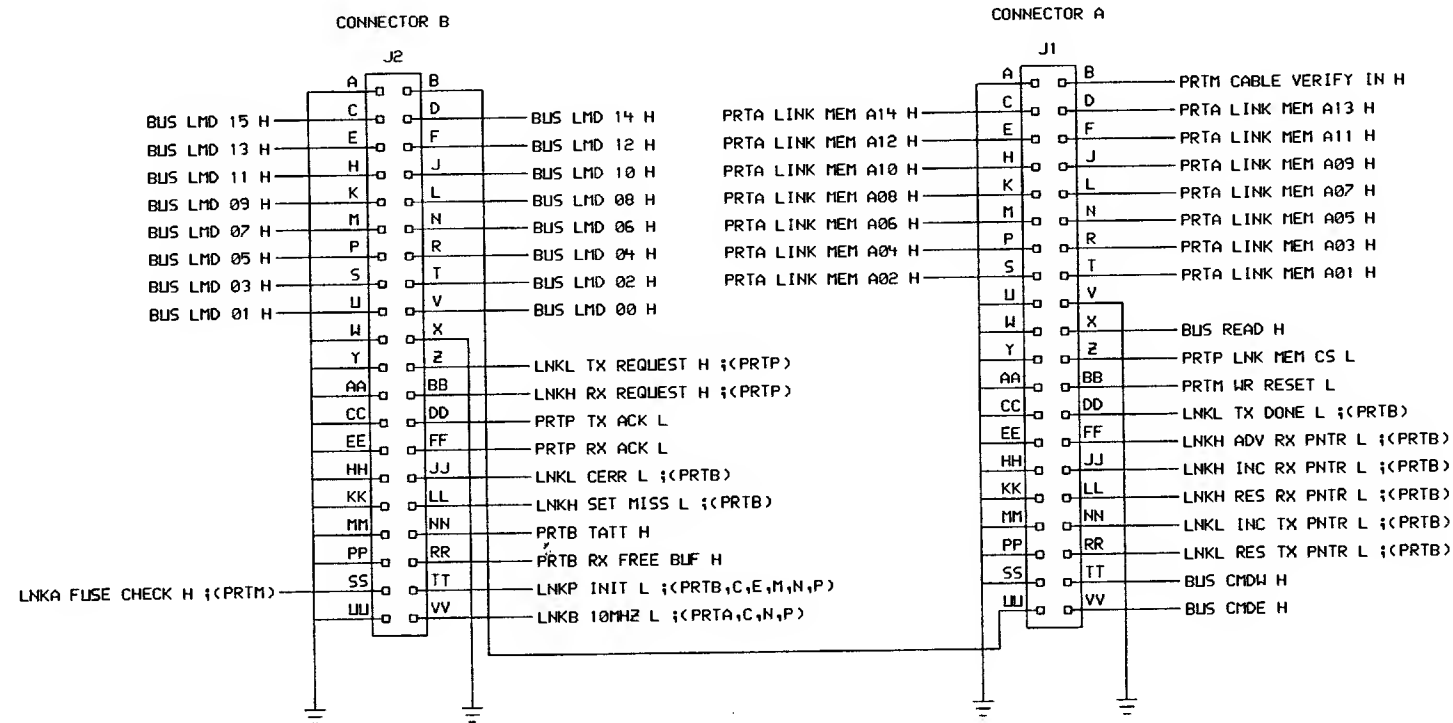












(BUS GRANT CONTINUITY)

DS2 BUS BG4 IN H — BUS BG4 OUT H DT2

DM2 BUS BG6 IN H — BUS BG6 OUT H DN2

DK2 BUS BG7 IN H — BUS BG7 OUT H DL2

| LINK MODULE FORWARD REFERENCE |                |
|-------------------------------|----------------|
| PORT OUTPUT                   | LINK CS        |
| PRTB TX ACK L                 | LNKN           |
| PRTB RX ACK L                 | LNKN           |
| PRTB TATT H                   | LNKH           |
| PRTB RX FREE BUF H            | LNKH           |
| PRTA LINK MEM A(14:01) H      | LNKR           |
| BUS READ H                    | LNKN,R         |
| BUS LMD <15:00> H             | LNKE,F,J,N,M,R |
| PRTB LNK MEM CS L             | LNKR           |
| PRTM WR RESET L               | LNKP           |
| BUS CMDW H                    | LNKN           |
| BUS CMDE H                    | LNKF,N         |

## PORT/LINK INTERCONNECT CABLE CONNECTORS

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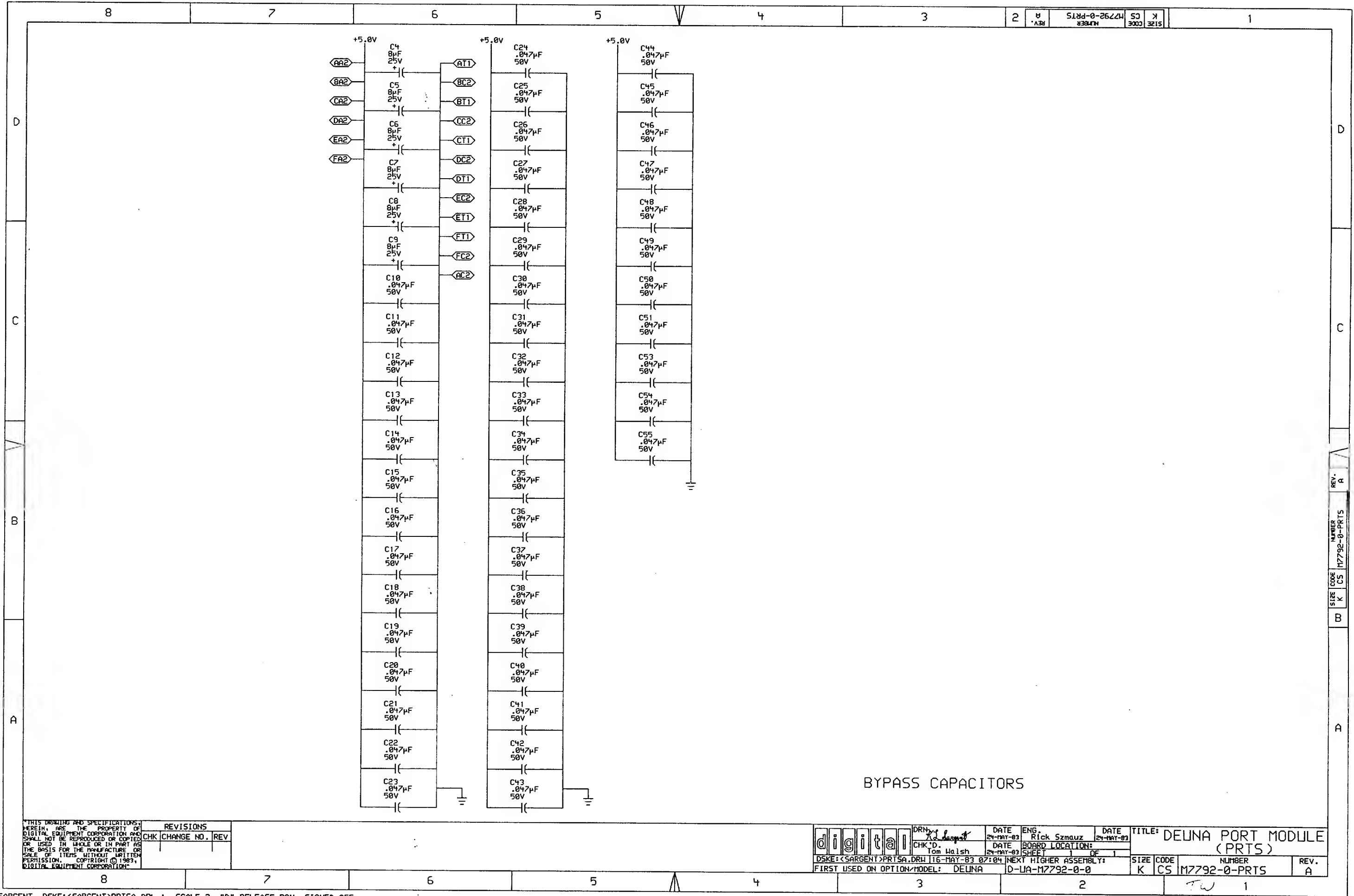
digital

DRN: Rick Szmaz  
CHK: Tom Walsh  
DATE: 24-MAY-83  
DATE: 24-MAY-83  
SHEET: 1 OF 1

DSKE: <SARGENT>PRTRA.DRW 116-MAY-83 07:53  
FIRST USED ON OPTION/MODEL: DEUNA

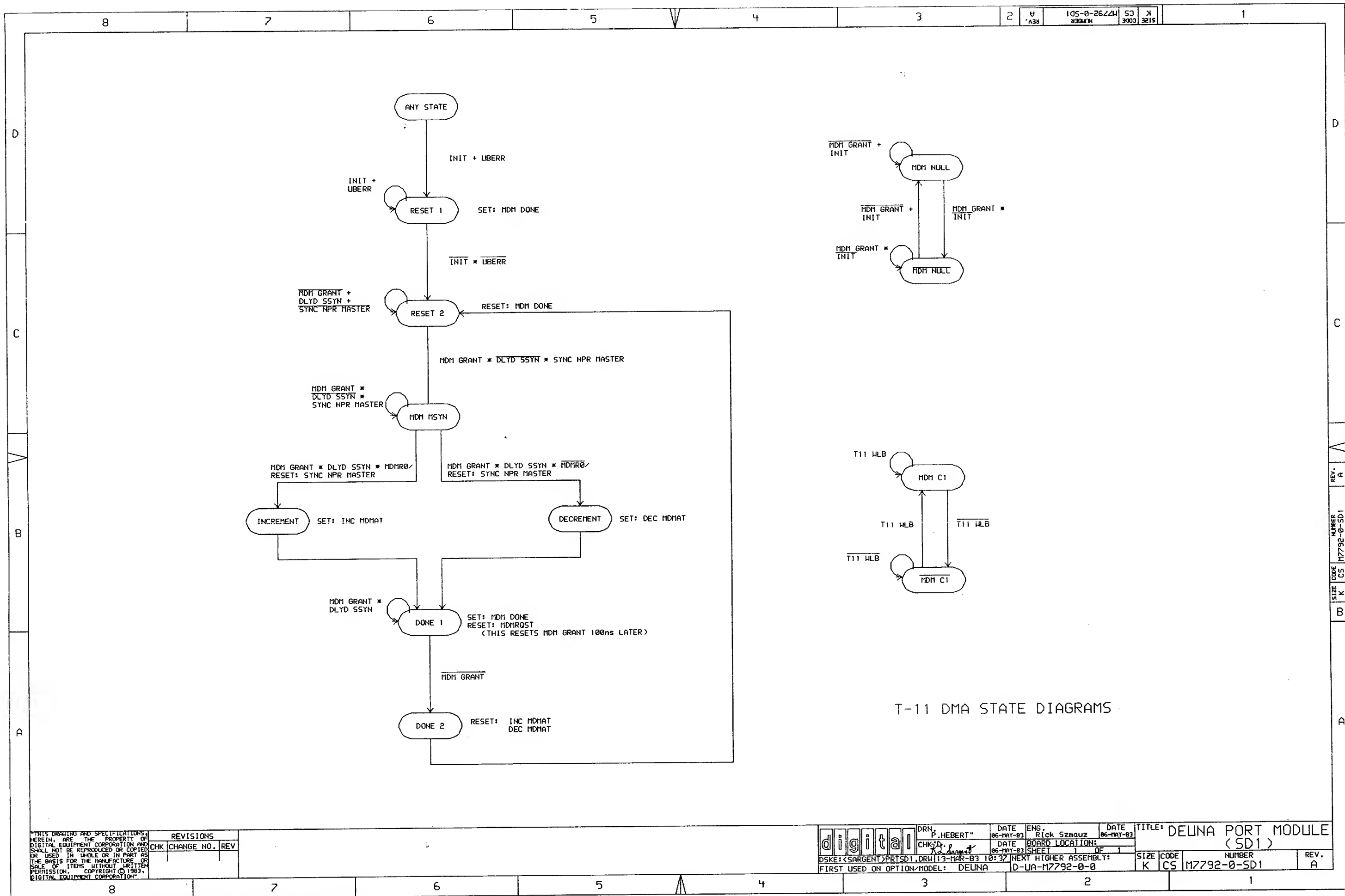
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SHEET: 1 OF 1  
TITLE: DEUNA PORT MODULE (PRTR)

SIZE: K CS  
CODE: M7792-0-PRTR  
NUMBER: 1  
REV: A



| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|   |                       |                 |                              |                      |                                 |          |
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| digital   | DRN: <i>Tom Walsh</i> | DATE: 24-MAY-83 | ENG: Rick Szmauz             | DATE: 24-MAY-83      | TITLE: DEUNA PORT MODULE (PRTS) |          |
|   | CHK'D: Tom Walsh      | DATE: 24-MAY-83 | BOARD LOCATION: SHEET 1 OF 1 |                      | SIZE: K                         | CODE: CS |
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| FIRST USED ON OPTION/MODEL: DEUNA                                     |                       |                 |                              | ID-UA-M7792-0-0      |                                 |          |





8

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5

4

3

2

A

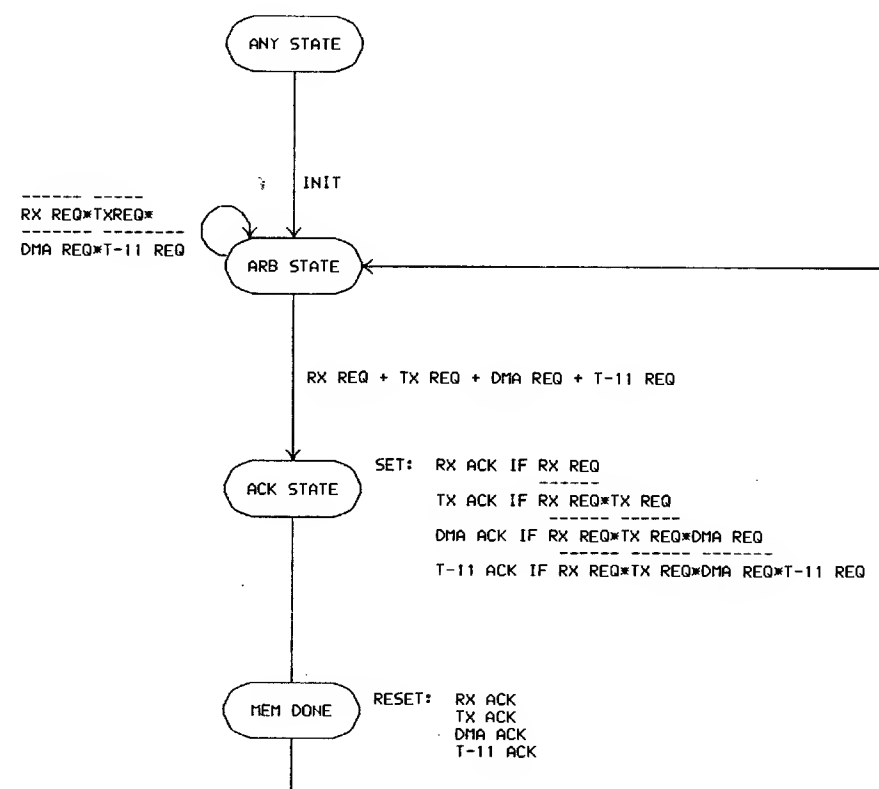
205-0-26224

CS

K

1

## LINK-PORT BUS OPERATION STATE DIAGRAM



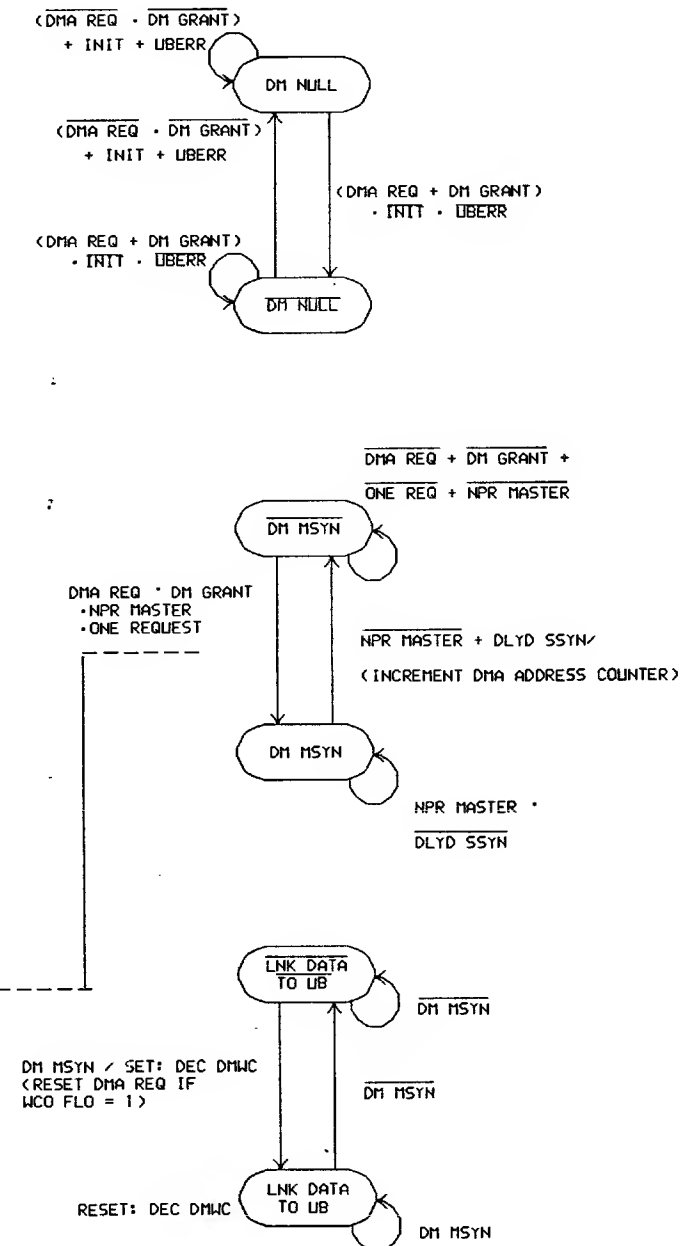
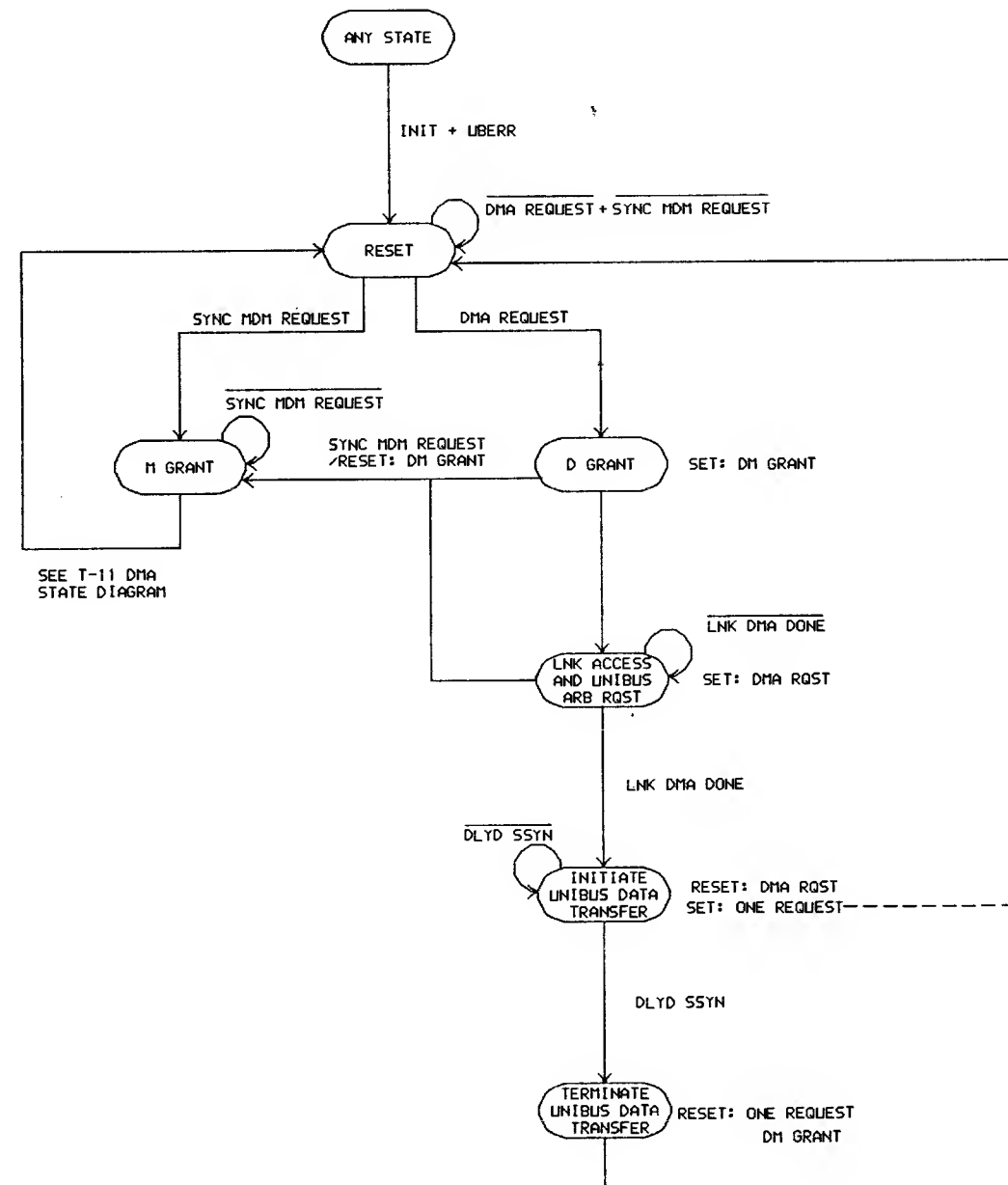
## LINK-PORT BUS OPERATION STATE DIAGRAM

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|                                    |                   |                 |                                      |                |                                 |
|------------------------------------|-------------------|-----------------|--------------------------------------|----------------|---------------------------------|
| digital                            | DRN. PAUL HEBERT  | DATE 06-MAY-83  | ENG. Rick Szmauz                     | DATE 06-MAY-83 | TITLE: DELUNA PORT MODULE (SD2) |
|                                    | CHKD. [Signature] | DATE 06-MAY-83  | BOARD LOCATION: 1 OF 1               | SHEET 1 OF 1   |                                 |
| DSKE: <SARGENT>PRTSD2.DRW          |                   | 06-MAY-83 08:24 | NEXT HIGHER ASSEMBLY: D-LA-M7792-0-0 |                |                                 |
| FIRST USED ON OPTION/MODEL: DELUNA |                   |                 |                                      | SIZE CODE K CS | NUMBER M7792-0-SD2              |
|                                    |                   |                 |                                      |                | REV. A                          |

# RECEIVE DMA ENGINE STATE DIAGRAMS



## RX DMA ENGINE STATE DIAGRAMS

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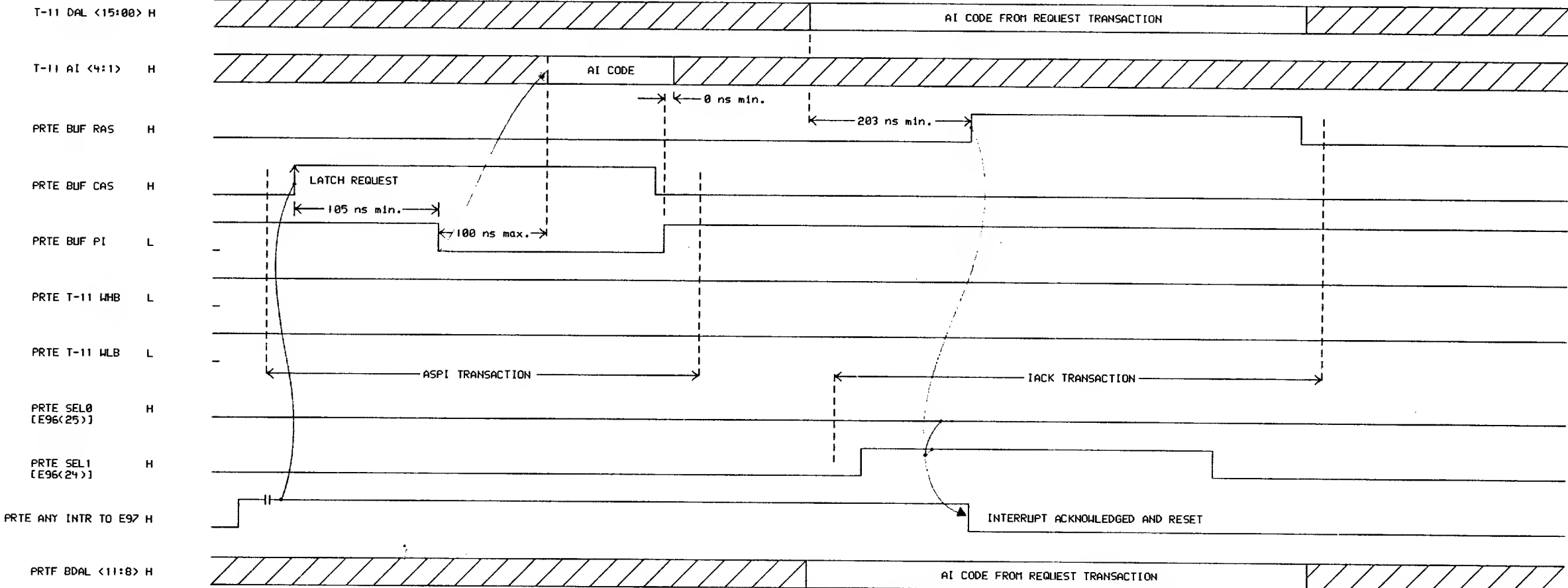
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|-----------|------------|-----|
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|           |            |     |

**digital**

DRN. PAUL HEBERT\*  
 DATE 28-MAY-83  
 ENG. Rick Szmduz  
 DATE 28-MAY-83  
 BOARD LOCATION: 1 OF 1  
 SHEET 1 OF 1  
 DSKE: <SARGENT>PRTSD3.DRW  
 FIRST USED ON OPTION MODEL: DEUNA

TITLE: DEUNA PORT MODULE (SD3)  
 SIZE CODE K CS  
 NUMBER M7792-0-SD3  
 REV. A

T-11 INTERRUPT REQUEST/ACKNOWLEDGE (ASPI/IACK) TRANSACTIONS



| INTERRUPT          | E97(PIN) | AI CODE DURING ASPI TRANSACTION |       |       |       | T-11 INTERNAL VECTOR | PRIORITY | DURING IACK TRANSACTION |         |          |
|--------------------|----------|---------------------------------|-------|-------|-------|----------------------|----------|-------------------------|---------|----------|
|                    |          | AI<1>                           | AI<2> | AI<3> | AI<4> |                      |          | BDAL<8>                 | BDAL<9> | BDAL<10> |
| LINK MEMORY PARITY | 4        | L                               | L     | L     | L     | 140                  | 7        | L                       | L       | L        |
| UNIBUS ERROR       | 8        | L                               | L     | H     | L     | 150                  | 7        | L                       | L       | L        |
| MISSED PACKET      | 3        | L                               | H     | L     | L     | 100                  | 6        | L                       | H       | H        |
| DMA ENGINE DONE    | 18       | L                               | H     | H     | H     | 114                  | 6        | L                       | H       | L        |
| PACKET RECEIVED    | 17       | H                               | L     | L     | L     | 120                  | 5        | H                       | L       | L        |
| TIMER              | 14       | H                               | L     | H     | H     | 134                  | 5        | H                       | L       | L        |
| PCSR0 ACCESSED     | 7        | H                               | H     | L     | H     | 064                  | 4        | H                       | H       | H        |
| TRANSMIT DONE      | 13       | H                               | H     | H     | L     | 070                  | 4        | H                       | H       | H        |

NOTE: THE PACKET RECEIVED INTR (E97<17>) IS NOT RESET BY IACK. THE SERVICE ROUTINE READS THE FIFO ON PRTE (RD LRAC H). THIS ACTION RESETS THE INTR IF NO OTHER PACKETS ARE PENDING. IF OTHERS ARE WAITING THEN THE PACKET RECEIVED INTR AUTOMATICALLY SETS AGAIN.

SYMBOL KEY

IGNORED OR INVALID

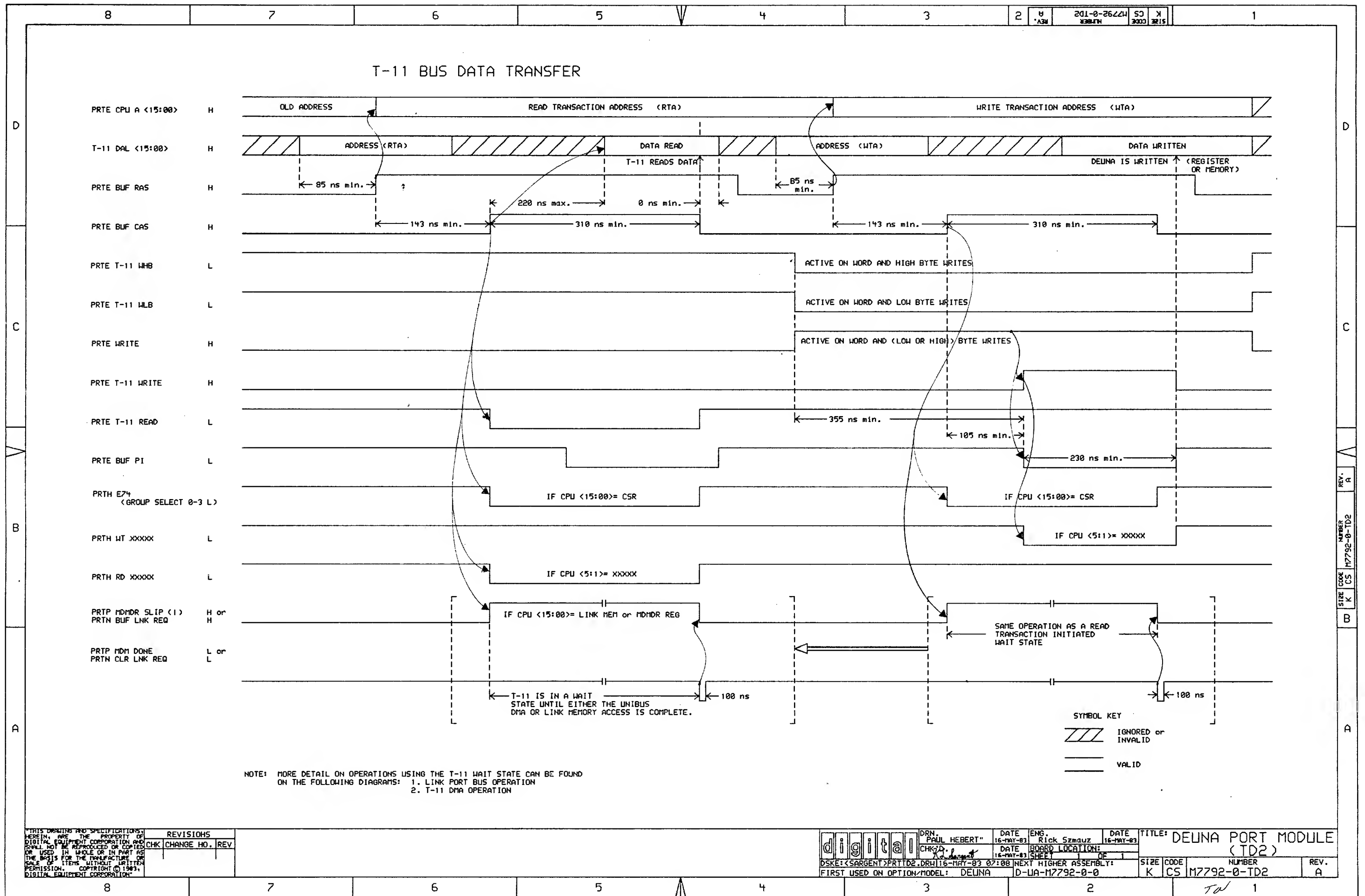
VALID

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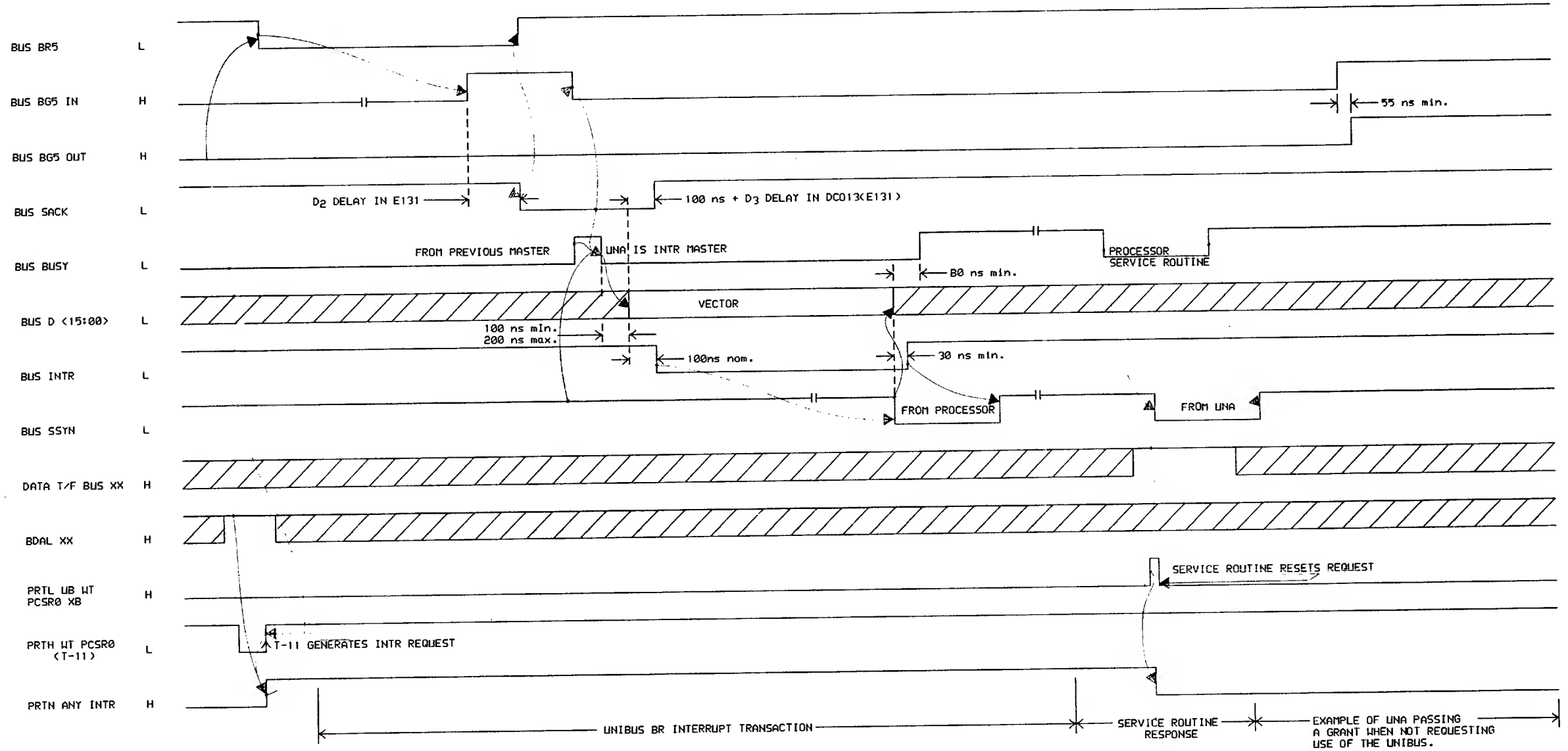
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|           |                |

digital

|                             |                 |                       |                         |
|-----------------------------|-----------------|-----------------------|-------------------------|
| DATE                        | ENG             | DATE                  | TITLE                   |
| 06-MAY-83                   | Rick Szmauz     | 06-MAY-83             | DEUNA PORT MODULE (TD1) |
| DATE                        | BOARD LOCATION  | DATE                  |                         |
| 06-MAY-83                   |                 | 06-MAY-83             |                         |
| SHEET                       | OF              | SHEET                 | OF                      |
| 1                           | 1               | 1                     | 1                       |
| DSKE: (SARGENT)PRTD1.DRW    | 06-MAY-83 08:31 | NEXT HIGHER ASSEMBLY: |                         |
| FIRST USED ON OPTION/MODEL: | DEUNA           | D-UA-M7792-0-0        |                         |
| SIZE                        | CODE            | NUMBER                | REV.                    |
| K                           | CS              | M7792-0-TD1           | A                       |



UNIBUS INTERRUPT ARBITRATION AND VECTOR TRANSFER



NOTE: THE T-11 INITIATES UNIBUS INTERRUPTS BY SETTING APPROPRIATE BIT(S) IN PCSR0 (PRTH). THE SERVICE ROUTINE THEN CLEARS THE REQUESTING BIT(S) BY WRITING A ONE (1) INTO THE BIT POSITION OF THE REQUEST. E2, E39 AND E50 PROVIDE THE "T-11 WRITE ONE TO SET, UNIBUS WRITE ONE TO RESET" FUNCTION. SEE PAL EQUATIONS FOR MORE DETAIL.

SYMBOL KEY

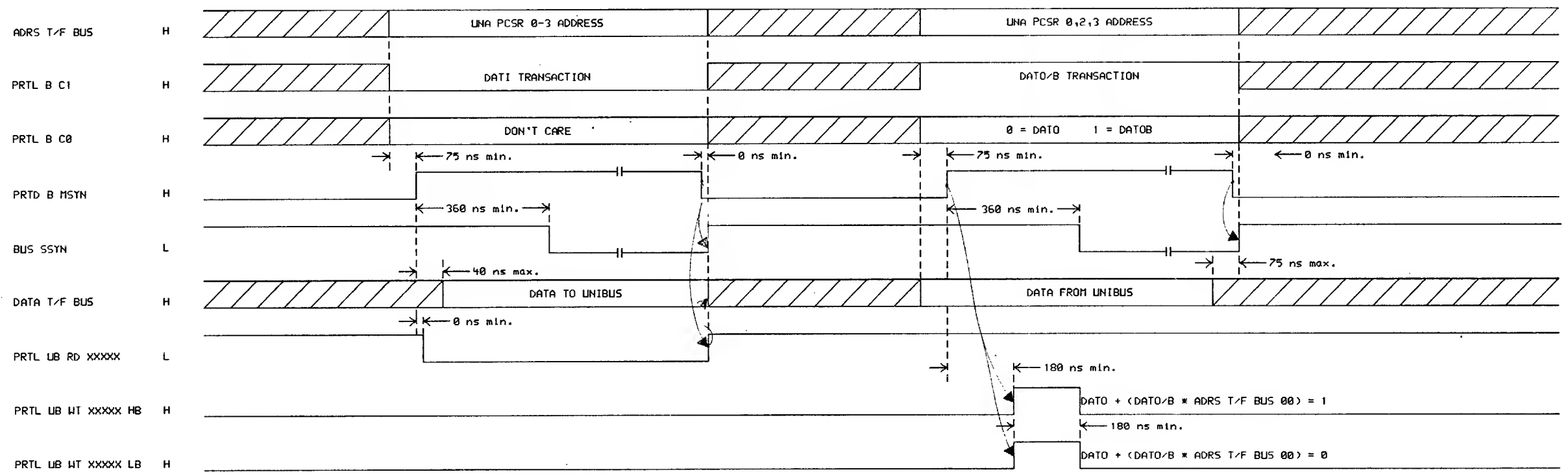
IGNORED or NOT VALID

VALID

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|           |            |     |

|  |                  |                 |                        |                 |                                |          |
|--|------------------|-----------------|------------------------|-----------------|--------------------------------|----------|
| digital  | DRN: PAUL HEBERT | DATE: 06-MAY-83 | ENG: Rick Szmauz       | DATE: 06-MAY-83 | TITLE: DEUNA PORT MODULE (TD3) |          |
|  | CHK: [Signature] | DATE: 06-MAY-83 | BOARD LOCATION: 1 OF 1 | SHEET: 1 OF 1   | SIZE: K                        | CODE: CS |
| DSKE: <SARGENT>PRTID3.DRW/06-MAY-83 08:32 NEXT HIGHER ASSEMBLY: D-UA-M7792-0-0 |                  |                 |                        |                 | NUMBER: M7792-0-TD3            | REV: A   |
| FIRST USED ON OPTION/MODEL: DEUNA  |                  |                 |                        |                 | 70 1                           |          |

UNIBUS SLAVE DATA TRANSFER

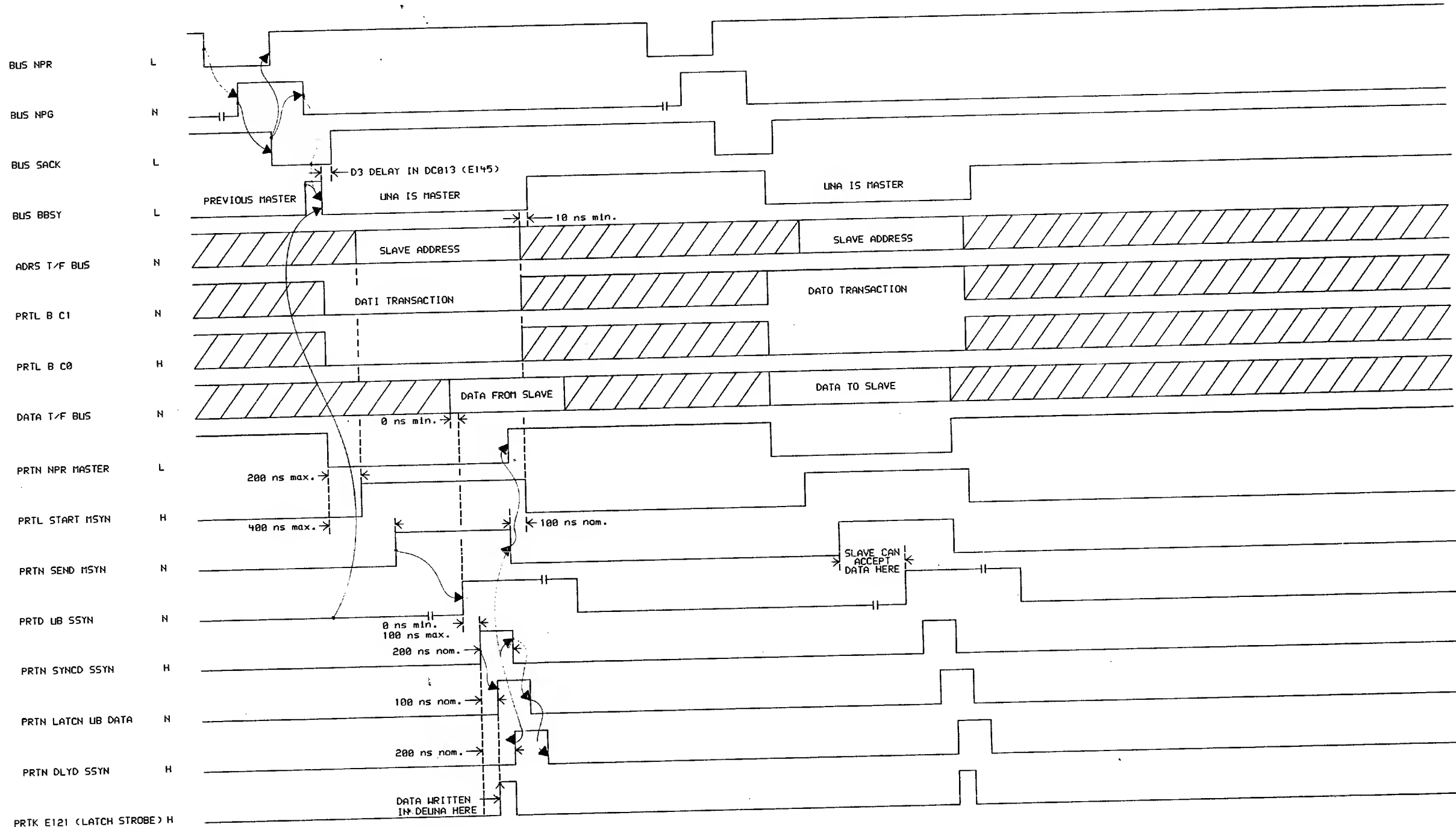


SYMBOL KEY

IGNORED or NOT VALID

VALID

UNIBUS MASTER ARBITRATION AND DATA TRANSFER



NOTE 1:  
THIS DIAGRAM ILLUSTRATES GENERIC UNIBUS TRANSACTIONS BY  
EITHER THE RECEIVE DMA ENGINE OR T-11 DMA. SEE THE T-11  
DMA OPERATION OR RECEIVE DMA ENGINE OPERATION DIAGRAMS  
FOR SPECIFICS ON THE UNIQUE ASPECTS OF THE TWO TYPES OF DMA.  
(THE RECEIVE DMA ENGINE ONLY PERFORMS DATA TRANSACTIONS)

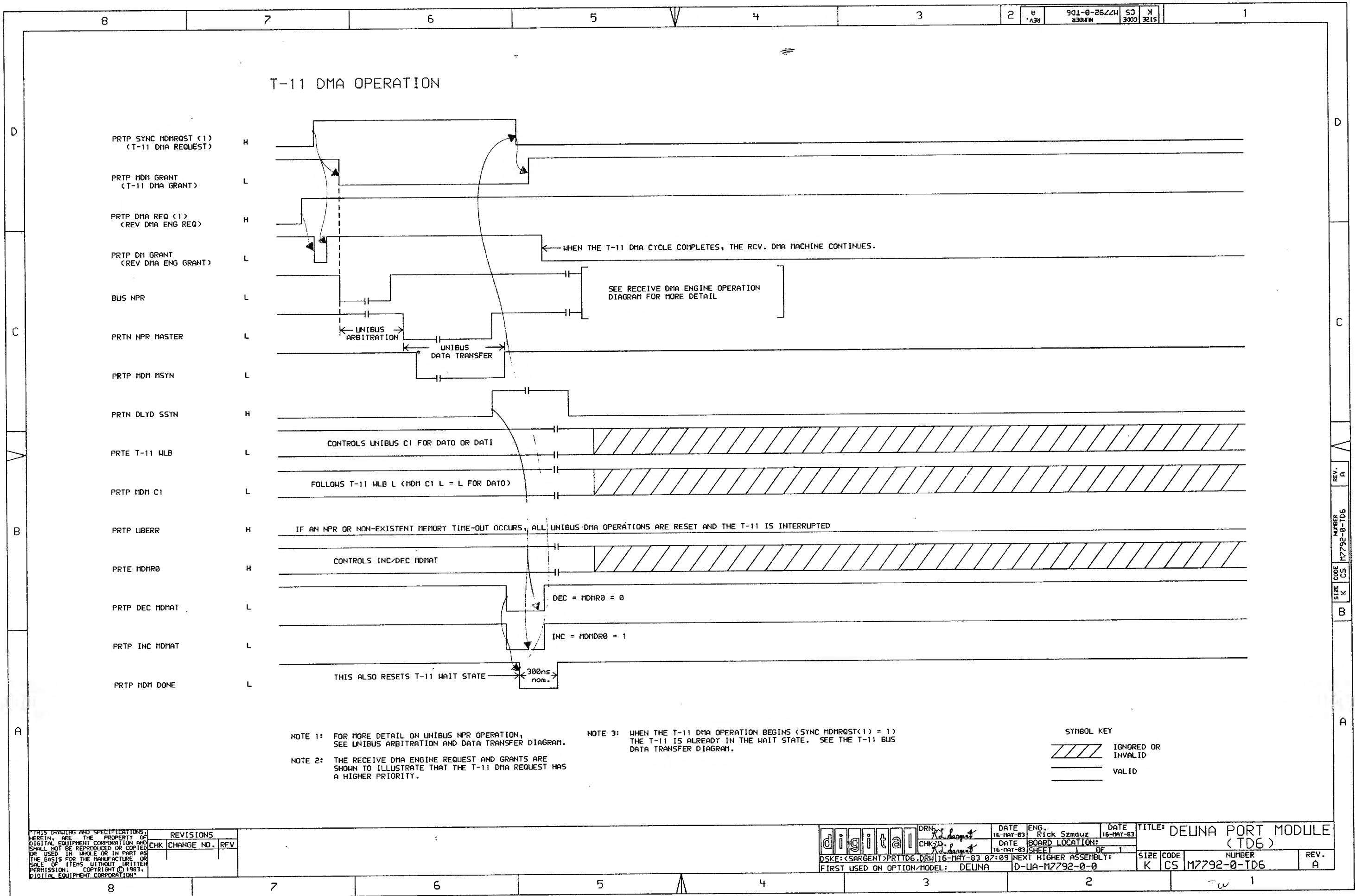
NOTE 2:  
DATA TIMING RELATIONS ARE IDENTICAL TO DATA EXCEPT,  
PRTL B C1 H = 1 AND DATA IS WRITTEN TO THE SLAVE.

SYMBOL KEY  
/// IGNORED OR INVALID  
— VALID

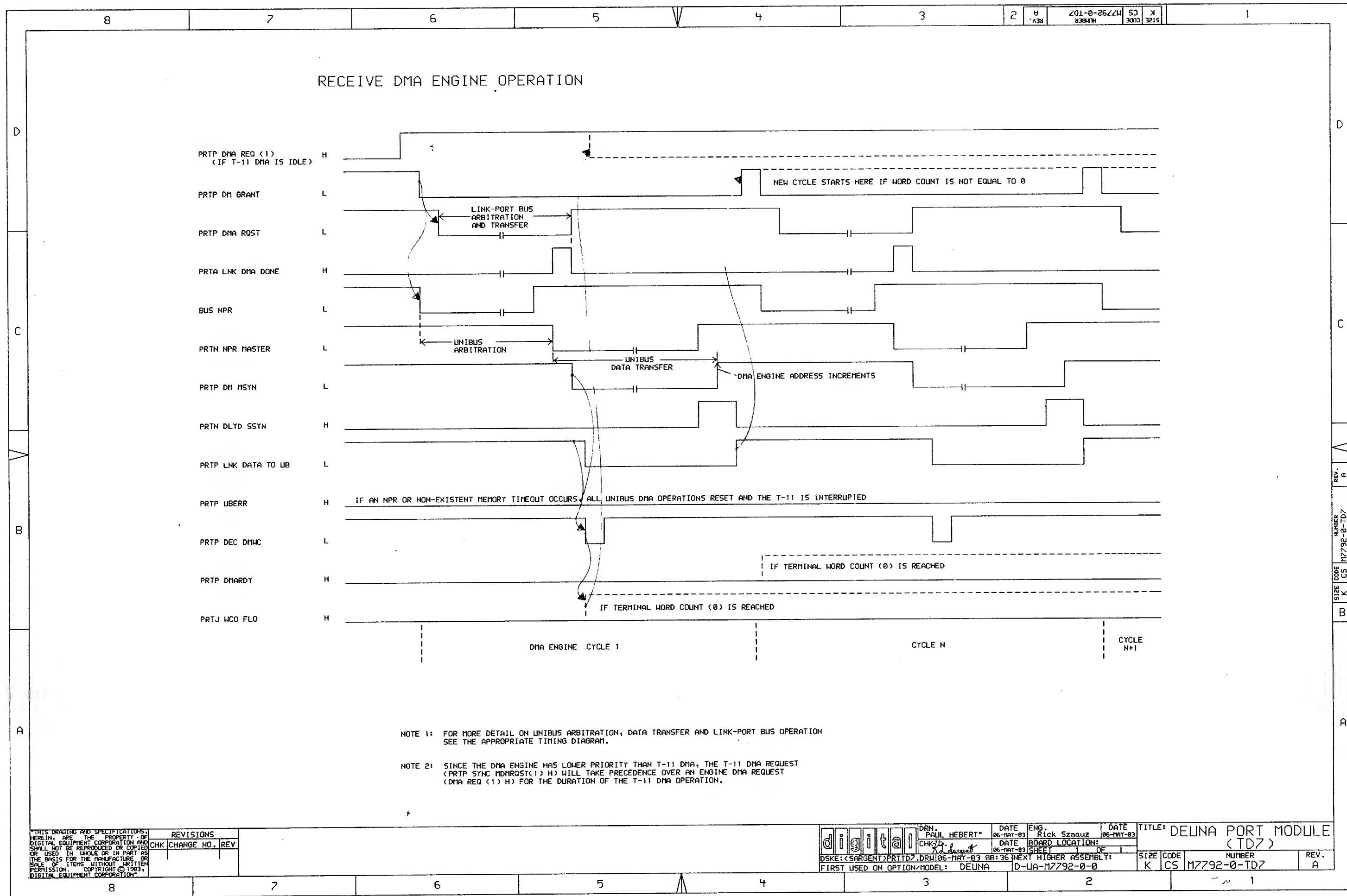
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|  |                     |                 |                        |                 |                                |          |                     |        |
|--|---------------------|-----------------|------------------------|-----------------|--------------------------------|----------|---------------------|--------|
| digital  | DRN: <i>Richard</i> | DATE: 06-MAY-83 | ENG: Rick Szmauz       | DATE: 06-MAY-83 | TITLE: DEUNA PORT MODULE (TD5) |          |                     |        |
|  | CHK: <i>Richard</i> | DATE: 06-MAY-83 | BOARD LOCATION: 1 OF 1 | DATE: 06-MAY-83 |                                |          |                     |        |
| DSKE: <SARGENT>PRTT05.DRW 06-MAY-83 08:34 NEXT HIGHER ASSEMBLY: D-UA-M7792-0-0 |                     |                 |                        |                 | SIZE: K                        | CODE: CS | NUMBER: M7792-0-TD5 | REV: A |
| FIRST USED ON OPTION/MODEL: DEUNA  |                     |                 |                        |                 | 2                              | 1        |                     |        |







Timing diagram for T-11, TX, RX, and DMA operations. The diagram shows the sequence of events for reading and writing link memory and the DMA receive engine. Key signals include T-11, TX, RX, DMA, LNK, and PARITY. Annotations specify timing constraints: 55 ns max for T-11 read, 25 ns min for TX read, and 100 ns max for T-11 write. Data latching events are marked: "DATA LATCHED INTO T-11 LNK MEM LATCH (PRTA)", "DATA LATCHED INTO TX REG ON LNK", and "DATA LATCHED INTO RCV DMA ENGINE LATCH (PRTA)". A "T-11 WRITE" signal is shown for the write operation. "MEMORY WRITTEN" is indicated for the TX and RX operations. "INTR T-11 ON ERROR" is shown as a dashed line. A clock signal is at the bottom.

Legend:

- T-11 READ OF LINK MEMORY
- T-11 WRITE OF LINK MEMORY
- TX READ OF LINK MEM  
RX POINTER IS ADDRESS
- RX WRITE OF LINK MEMORY  
RX POINTER AND FIFO  
IS ADDRESS
- DMA RECEIVE ENGINE  
READ OF LINK MEMORY

| PRIORITY | REQUEST |
|----------|---------|
| 1        | RX      |
| 2        | TX      |
| 3        | OMA     |
| 4        | T-11    |

NOTE 4: THE RECEIVE DMA ENGINE PERFORMS ONLY READ TRANSFERS.

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digital

|        |                    |
|--------|--------------------|
| DRN.   | PAUL HEBERT"       |
| CHK'D. | <i>[Signature]</i> |

|                   |                                 |                   |
|-------------------|---------------------------------|-------------------|
| DATE<br>06-MAY-83 | ENG.<br>Rick Szmauz             | DATE<br>06-MAY-83 |
| DATE<br>06-MAY-83 | BOARD LOCATION:<br>SHEET 1 OF 1 |                   |

TITLE: DEUNA PORT MODULE  
(TD8)

|                             |                 |                       |
|-----------------------------|-----------------|-----------------------|
| DSKE:<SARGENT>PRITDB.0RU    | 06-MAY-83 08:37 | NEXT HIGHER ASSEMBLY: |
| FIRST USED ON OPTION/MODEL: | DELUNA          | D-4A-M7792-0-0        |

|      |      |             |      |
|------|------|-------------|------|
| SIZE | CODE | NUMBER      | REV. |
| K    | CS   | M7792-0-TD8 | A    |















| PROGRAM TABLE ENTRIES                                       |    |            |   |                              |   |            |
|---|----|------------|---|------------------------------|---|------------|
| INPUT VARIABLE  |    |            | OUTPUT FUNCTION   |                              | OUTPUT ACTIVE LEVEL   |            |
| Im  | Im | Don't Care | Prod. Term Present In Fp  | Prod. Term Not Present in Fp | ACTIVE HIGH   | ACTIVE LOW |
| H   | L  | - (dash)   | A   | . (period)                   | H   | L          |
| <b>Note:</b><br>Enter (-) for unused inputs of used P-terms |    |            | <b>Notes:</b><br>1. Entries independent of output polarity<br>2. Enter (A) for unused outputs of used P-terms |                              | <b>Notes:</b><br>1. Polarity prog. once only<br>2. Enter (H) for all unused outputs |            |

[illegible]

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|                                      |                        |                 |                              |                                      |                          |             |           |        |
|--------------------------------------|------------------------|-----------------|------------------------------|--------------------------------------|--------------------------|-------------|-----------|--------|
| digital                              | DRN: <i>A. Sargent</i> | DATE: 10-JUN-83 | ENG: Rick Szmauz             | DATE: 10-JUN-83                      | TITLE: DELNA PORT MODULE |             |           |        |
|                                      | CHK'D: Ken Sargent     | DATE: 10-JUN-83 | BOARD LOCATION: SHEET 1 OF 1 |                                      | FPLA PATTERN LISTING     |             |           |        |
| DSK:PRIT77.T2P4.112J 10-JUN-83 09:19 |                        |                 |                              | NEXT HIGHER ASSEMBLY: D-UA-M7792-0-0 |                          | SIZE CODE K | NUMBER C5 | REV. A |
| FIRST USED ON OPTION/MODEL: DELNA    |                        |                 |                              |                                      |                          | M7792-0-TT7 |           |        |

8 7 6 5 4 3 2 1

REV. A  
SIZE K  
CODE CS  
NUMBER M7792-0-TT8

1  
2  
3  
4  
5  
6  
7  
8

D  
C  
B  
A

REV. A  
SIZE K  
CODE CS  
NUMBER M7792-0-TT8

A

PART NUMBER: 23-367A1-00  
LOCATION: E53  
DEVICE TYPE: PROM, 32 X 8, TTL, Tri-State

| DEC<br>LOC | HEX<br>LOC | OCT<br>LOC | OCT<br>DAT | HEX<br>DAT | BIN<br>DAT |
|------------|------------|------------|------------|------------|------------|
| 0          | 00         | 00         | 000        | 00         | 00000000   |
| 1          | 01         | 01         | 000        | 00         | 00000000   |
| 2          | 02         | 02         | 000        | 00         | 00000000   |
| 3          | 03         | 03         | 000        | 00         | 00000000   |
| 4          | 04         | 04         | 000        | 00         | 00000000   |
| 5          | 05         | 05         | 000        | 00         | 00000000   |
| 6          | 06         | 06         | 000        | 00         | 00000000   |
| 7          | 07         | 07         | 003        | 03         | 00000011   |
| 8          | 08         | 10         | 000        | 00         | 00000000   |
| 9          | 09         | 11         | 003        | 03         | 00000011   |
| 10         | 0A         | 12         | 000        | 00         | 00000000   |
| 11         | 0B         | 13         | 001        | 01         | 00000001   |
| 12         | 0C         | 14         | 000        | 00         | 00000000   |
| 13         | 0D         | 15         | 002        | 02         | 00000010   |
| 14         | 0E         | 16         | 000        | 00         | 00000000   |
| 15         | 0F         | 17         | 000        | 00         | 00000000   |
| 16         | 10         | 20         | 000        | 00         | 00000000   |
| 17         | 11         | 21         | 000        | 00         | 00000000   |
| 18         | 12         | 22         | 000        | 00         | 00000000   |
| 19         | 13         | 23         | 000        | 00         | 00000000   |
| 20         | 14         | 24         | 000        | 00         | 00000000   |
| 21         | 15         | 25         | 000        | 00         | 00000000   |
| 22         | 16         | 26         | 000        | 00         | 00000000   |
| 23         | 17         | 27         | 000        | 00         | 00000000   |
| 24         | 18         | 30         | 000        | 00         | 00000000   |
| 25         | 19         | 31         | 000        | 00         | 00000000   |
| 26         | 1A         | 32         | 000        | 00         | 00000000   |
| 27         | 1B         | 33         | 000        | 00         | 00000000   |
| 28         | 1C         | 34         | 000        | 00         | 00000000   |
| 29         | 1D         | 35         | 000        | 00         | 00000000   |
| 30         | 1E         | 36         | 000        | 00         | 00000000   |
| 31         | 1F         | 37         | 000        | 00         | 00000000   |

NOTES: MCS Decode - (PRTF)

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| DATE      | ENG.        | DATE      | TITLE             |
|-----------|-------------|-----------|-------------------|
| 10-JUN-83 | Rick Szmauz | 10-JUN-83 | DEUNA PORT MODULE |

| DATE      | CHK'D.      | DATE      | BOARD LOCATION |
|-----------|-------------|-----------|----------------|
| 10-JUN-83 | Ken Sargent | 10-JUN-83 | SHEET 1 OF 1   |

| DSK:PRIT18.T2P(4,112) | 10-JUN-83 09:19 | NEXT HIGHER ASSEMBLY: | SIZE | CODE | NUMBER      | REV. |
|-----------------------|-----------------|-----------------------|------|------|-------------|------|
| FIRST USED ON OPTION: | DEUNA           | D-UA-M7792-0-0        | K    | CS   | M7792-0-TT8 | A    |

8 7 6 5 4 3 2 1

D  
C  
B  
A

|   |     |     |     |            |          |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
|---|-----|-----|-----|------------|----------|-----|--|------------------------------------|--|------------------|--|-----------------------|--|------------------|--|---------------------|-----|--------|-----|------------|-----|-----|-----|-----|-----|-----|-----|---|----|----|-----|---------|----------|--|----|-------------------------------------|-----|-----------------|----------|--|----|----|-----|----|----------|---|----|----|-----|----|----------|---|----|----|-----|----|----------|---|----|----|-----|----|----------|---|----|----|-----|----|----------|---|----|----|-----|----|----------|---|----|----|-----|----|----------|---|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|----|----|----|-----|----|----------|
| 8   |     | 7   |     | 6          |          | 5   |  | 4                                  |  | 3                |  | 2                     |  | 1                |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
|   |     |     |     |            |          |     |  |                                    |  |                  |  | 611-0-26244<br>338274 |  | CS K<br>300 3215 |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| PART NUMBER: 23-366A1-00  |     |     |     |            |          |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| LOCATION: E133  |     |     |     |            |          |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| DEVICE TYPE: PROM, 32 X 8, TTL, Tri-State   |     |     |     |            |          |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| <table><tr><td>DEC</td><td>HEX</td><td>OCT</td><td>OCT</td><td>HEX</td><td>BIN</td></tr><tr><td>LOC</td><td>LOC</td><td>LOC</td><td>DAT</td><td>DAT</td><td>DAT</td></tr><tr><td>0</td><td>00</td><td>00</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>1</td><td>01</td><td>01</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>2</td><td>02</td><td>02</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>3</td><td>03</td><td>03</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>4</td><td>04</td><td>04</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>5</td><td>05</td><td>05</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>6</td><td>06</td><td>06</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>7</td><td>07</td><td>07</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>8</td><td>08</td><td>10</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>9</td><td>09</td><td>11</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>10</td><td>0A</td><td>12</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>11</td><td>0B</td><td>13</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>12</td><td>0C</td><td>14</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>13</td><td>0D</td><td>15</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>14</td><td>0E</td><td>16</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>15</td><td>0F</td><td>17</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>16</td><td>10</td><td>20</td><td>003</td><td>03</td><td>00000011</td></tr><tr><td>17</td><td>11</td><td>21</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>18</td><td>12</td><td>22</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>19</td><td>13</td><td>23</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>20</td><td>14</td><td>24</td><td>014</td><td>0C</td><td>00001100</td></tr><tr><td>21</td><td>15</td><td>25</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>22</td><td>16</td><td>26</td><td>020</td><td>10</td><td>00010000</td></tr><tr><td>23</td><td>17</td><td>27</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>24</td><td>18</td><td>30</td><td>001</td><td>01</td><td>00000001</td></tr><tr><td>25</td><td>19</td><td>31</td><td>002</td><td>02</td><td>00000010</td></tr><tr><td>26</td><td>1A</td><td>32</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>27</td><td>1B</td><td>33</td><td>000</td><td>00</td><td>00000000</td></tr><tr><td>28</td><td>1C</td><td>34</td><td>004</td><td>04</td><td>00000100</td></tr><tr><td>29</td><td>1D</td><td>35</td><td>010</td><td>08</td><td>00001000</td></tr><tr><td>30</td><td>1E</td><td>36</td><td>020</td><td>10</td><td>00010000</td></tr><tr><td>31</td><td>1F</td><td>37</td><td>000</td><td>00</td><td>00000000</td></tr></table> |     |     |     |            |          |     |  |                                    |  |                  |  |                       |  |                  |  | DEC                 | HEX | OCT    | OCT | HEX        | BIN | LOC | LOC | LOC | DAT | DAT | DAT | 0 | 00 | 00 | 000 | 00      | 00000000 | 1                                      | 01 | 01                                  | 000 | 00              | 00000000 | 2  | 02 | 02 | 000 | 00 | 00000000 | 3 | 03 | 03 | 000 | 00 | 00000000 | 4 | 04 | 04 | 000 | 00 | 00000000 | 5 | 05 | 05 | 000 | 00 | 00000000 | 6 | 06 | 06 | 000 | 00 | 00000000 | 7 | 07 | 07 | 000 | 00 | 00000000 | 8 | 08 | 10 | 000 | 00 | 00000000 | 9 | 09 | 11 | 000 | 00 | 00000000 | 10 | 0A | 12 | 000 | 00 | 00000000 | 11 | 0B | 13 | 000 | 00 | 00000000 | 12 | 0C | 14 | 000 | 00 | 00000000 | 13 | 0D | 15 | 000 | 00 | 00000000 | 14 | 0E | 16 | 000 | 00 | 00000000 | 15 | 0F | 17 | 000 | 00 | 00000000 | 16 | 10 | 20 | 003 | 03 | 00000011 | 17 | 11 | 21 | 000 | 00 | 00000000 | 18 | 12 | 22 | 000 | 00 | 00000000 | 19 | 13 | 23 | 000 | 00 | 00000000 | 20 | 14 | 24 | 014 | 0C | 00001100 | 21 | 15 | 25 | 000 | 00 | 00000000 | 22 | 16 | 26 | 020 | 10 | 00010000 | 23 | 17 | 27 | 000 | 00 | 00000000 | 24 | 18 | 30 | 001 | 01 | 00000001 | 25 | 19 | 31 | 002 | 02 | 00000010 | 26 | 1A | 32 | 000 | 00 | 00000000 | 27 | 1B | 33 | 000 | 00 | 00000000 | 28 | 1C | 34 | 004 | 04 | 00000100 | 29 | 1D | 35 | 010 | 08 | 00001000 | 30 | 1E | 36 | 020 | 10 | 00010000 | 31 | 1F | 37 | 000 | 00 | 00000000 |
| DEC   | HEX | OCT | OCT | HEX        | BIN      |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| LOC   | LOC | LOC | DAT | DAT        | DAT      |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 0   | 00  | 00  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 1   | 01  | 01  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 2   | 02  | 02  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 3   | 03  | 03  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 4   | 04  | 04  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 5   | 05  | 05  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 6   | 06  | 06  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 7   | 07  | 07  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 8   | 08  | 10  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 9   | 09  | 11  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 10  | 0A  | 12  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 11  | 0B  | 13  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 12  | 0C  | 14  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 13  | 0D  | 15  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 14  | 0E  | 16  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 15  | 0F  | 17  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 16  | 10  | 20  | 003 | 03         | 00000011 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 17  | 11  | 21  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 18  | 12  | 22  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 19  | 13  | 23  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 20  | 14  | 24  | 014 | 0C         | 00001100 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 21  | 15  | 25  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 22  | 16  | 26  | 020 | 10         | 00010000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 23  | 17  | 27  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 24  | 18  | 30  | 001 | 01         | 00000001 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 25  | 19  | 31  | 002 | 02         | 00000010 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 26  | 1A  | 32  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 27  | 1B  | 33  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 28  | 1C  | 34  | 004 | 04         | 00000100 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 29  | 1D  | 35  | 010 | 08         | 00001000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 30  | 1E  | 36  | 020 | 10         | 00010000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| 31  | 1F  | 37  | 000 | 00         | 00000000 |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| NOTES: UB Control - (PRTL)  |     |     |     |            |          |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
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| <table><tr><td colspan="2">REVISIONS</td><td colspan="2">CHK</td><td colspan="2">CHANGE NO.</td><td colspan="2">REV</td></tr><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr></table>  |     |     |     |            |          |     |  |                                    |  |                  |  |                       |  |                  |  | REVISIONS           |     | CHK    |     | CHANGE NO. |     | REV |     |     |     |     |     |   |    |    |     | digital |          | DRN: 10-00000000<br>CHK'D: Ken Sargent |    | DATE: 10-JUN-83<br>ENG: Rick Szmauz |     | DATE: 10-JUN-83 |          | TITLE: DEUNA PORT MODULE<br>PROM PATTERN LISTING |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
| REVISIONS   |     | CHK |     | CHANGE NO. |          | REV |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
|   |     |     |     |            |          |     |  |                                    |  |                  |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
|   |     |     |     |            |          |     |  | DSK: PRTT (9, 12, 14, 11, 21)      |  | 110-JUN-83 09:19 |  | NEXT HIGHER ASSEMBLY: |  | SIZE: CODE: K CS |  | NUMBER: M7792-0-TT9 |     | REV: A |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |
|   |     |     |     |            |          |     |  | FIRST USED ON OPTION/MODEL: DELINA |  | D-LA-M7792-0-0   |  |                       |  |                  |  |                     |     |        |     |            |     |     |     |     |     |     |     |   |    |    |     |         |          |  |    |                                     |     |                 |          |  |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |   |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |    |    |    |     |    |          |

| 8 | | 7 | | 6 | | 5 | | 4 | | 3 | | 2 | | 1 | |
| D C B A | | | | | | | | | | | | | | | |

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DRAWING DIRECTORY

| ITEM | DRAWING NO.      | NO. OF SHTS | PART NO.   | DESCRIPTION       | TYPE | REVISIONS |   |   |   |   |   |   |   |   |   |   |   |
|------|------------------|-------------|------------|-------------------|------|-----------|---|---|---|---|---|---|---|---|---|---|---|
|      |                  |             |            |                   |      | A         | B | C | D | E | F | G | H | I | J | K | L |
|      |                  |             |            |                   |      | A         | B | C | D | E | F | G | H | I | J | K | L |
|      |                  |             |            |                   |      | A         | B | C | D | E | F | G | H | I | J | K | L |
|      |                  |             |            |                   |      | A         | B | C | D | E | F | G | H | I | J | K | L |
| 1    |                  |             | M7793      | DEUNA LINK MODULE |      | A         | B | C | D | E | F | G | H | I | J | K | L |
| 2    | D-UA-M7793-0-0   | 2           |            | UNIT ASSEMBLY     |      | A         | B | C | D | E | F | G | H | I | J | K | L |
| 3    | D-EC-5015005-0-0 | 3           |            | ETCH CUT          |      | A         | B | C | D | E | F | G | H | I | J | K | L |
| 4    | D-MD-5015005-0-0 | 5           |            | DRILL AND ETCH    |      | A         | A | A | A | B | B | C |   |   |   |   |   |
| 5    | K-PL-M7793-0-0   | 3           |            | PARTS LIST        |      | A         | A | A | B | C | D | E |   |   |   |   |   |
| 6    |                  |             | 5015005-00 | ETCHED BOARD      |      | B         | B | B | B | C | C | D |   |   |   |   |   |
| 7    | K-PC-M7793-0-DBI | -           |            | PC DATABASE       |      | B         | B | B | B | C | C | D |   |   |   |   |   |
| 8    | K-CS-M7793-0-DBS | -           |            | SUDS DATABASE     |      | A         | B | C | D | E | F | G |   |   |   |   |   |
| 9    | K-CS-M7793-0-BD1 | 1           |            | SCHEMATICS        |      | A         | A | A | A | A | A | A |   |   |   |   |   |
| 10   | K-CS-M7793-0-SD1 | 1           |            | SCHEMATICS        |      | A         | A | A | A | A | A | A |   |   |   |   |   |
| 11   | K-CS-M7793-0-SD2 | 1           |            | SCHEMATICS        |      | A         | A | A | A | A | A | A |   |   |   |   |   |
| 12   | K-CS-M7793-0-SD3 | 1           |            | SCHEMATICS        |      | A         | A | A | A | A | A | A |   |   |   |   |   |

NOTES:

USED ON OPTION/MODULE "DEUNA-AA", DEUNA-KP, DEUNA-M.

DD  
REV

A

B

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REVISION HISTORY

CONT. REVISION HISTORY

MADE BY: M. MATTOCK

DATE: 25 MAR 85

CHECKED BY: F. CARBONE

DATE: 25 MAR 85

DESIGN ENGINEER: M. LAWRENCE

DATE: 25 MAR 85

RESPONSIBLE ENG: M. LAWRENCE

DATE: 25 MAR 85

PRODUCTION ENG: D. DUNCAN

DATE: 28 OCT 82

d i g i t a l

TITLE DRAWING DIRECTORY

DEUNA LINK MODULE

SIZE | CODE | DOCUMENT NUMBER | REV.  
K | DD | M7793-0 | H

SHEET 1 OF 3 MKO

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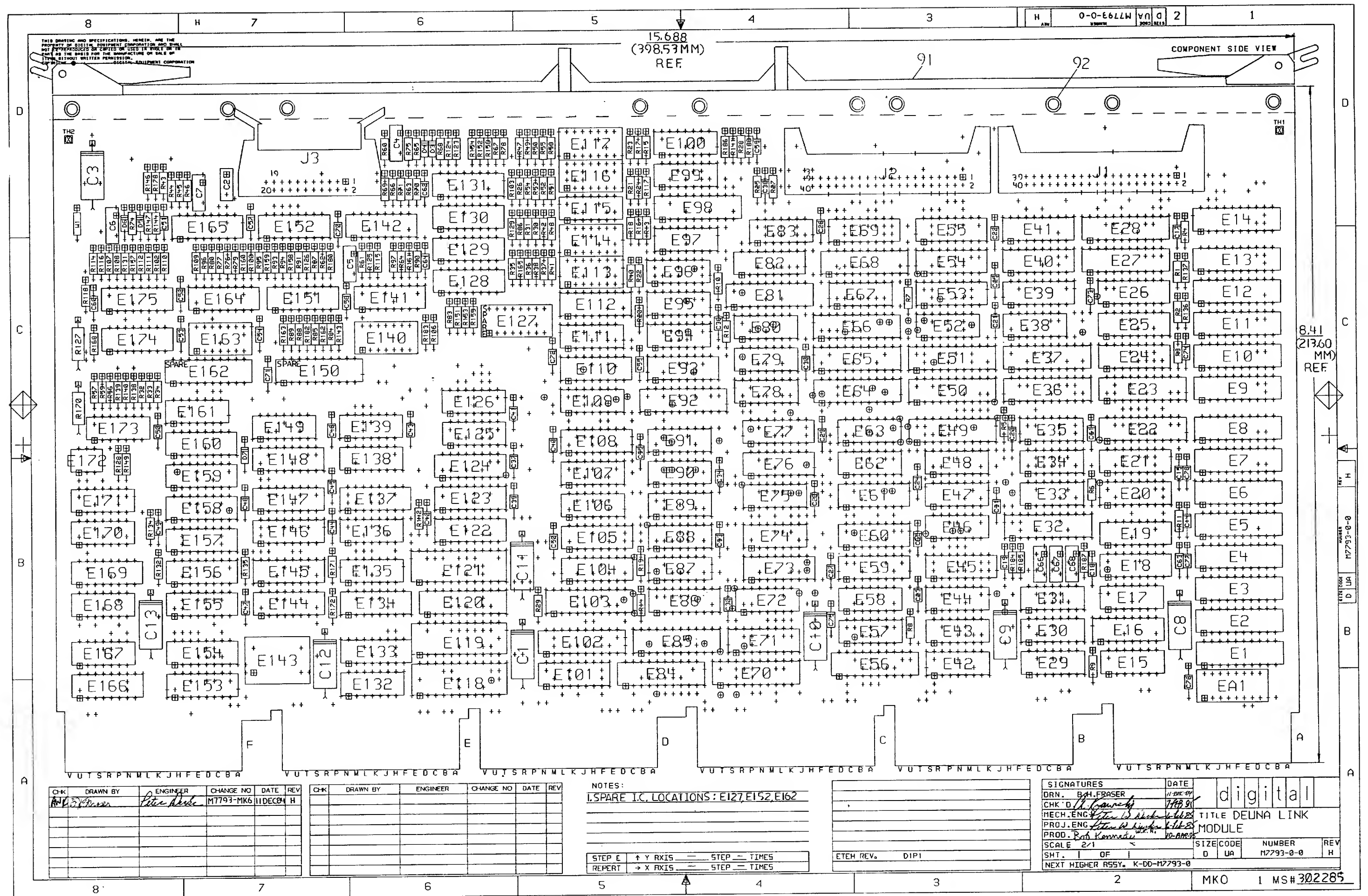
## DRAWING DIRECTORY CONTINUED

| ITEM                   | DRAWING NO.      | NO. OF SHTS | PART NO. | DESCRIPTION | TYPE                   | REVISIONS |   |                  |   |   |   |                                      |  |  |  |  |  |
|------------------------|------------------|-------------|----------|-------------|------------------------|-----------|---|------------------|---|---|---|--------------------------------------|--|--|--|--|--|
|                        |                  |             |          |             |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 13                     | K-CS-M7793-0-SD4 | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 14                     | K-CS-M7793-0-TDA | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 15                     | K-CS-M7793-0-TDB | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 16                     | K-CS-M7793-0-TDC | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 17                     | K-CS-M7793-0-TDD | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 18                     | K-CS-M7793-0-TDE | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 19                     | K-CS-M7793-0-TDF | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 20                     | K-CS-M7793-0-TDH | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 21                     | K-CS-M7793-0-TDJ | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 22                     | K-CS-M7793-0-TDK | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 23                     | K-CS-M7793-0-TDL | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 24                     | K-CS-M7793-0-TDM | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 25                     | K-CS-M7793-0-TDN | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 26                     | K-CS-M7793-0-TDP | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 27                     | K-CS-M7793-0-TDR | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 28                     | K-CS-M7793-0-TDS | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 29                     | K-CS-M7793-0-TDT | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 30                     | K-CS-M7793-0-TDU | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 31                     | K-CS-M7793-0-TDV | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 32                     | K-CS-M7793-0-TDW | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 33                     | K-CS-M7793-0-TTA | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 34                     | K-CS-M7793-0-TTB | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 35                     | K-CS-M7793-0-TTC | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 36                     | K-CS-M7793-0-TTD | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 37                     | K-CS-M7793-0-TTE | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 38                     | K-CS-M7793-0-TTF | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 39                     | K-CS-M7793-0-TTH | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| 40                     | K-CS-M7793-0-TTJ | 1           |          | SCHEMATIC   |                        | A         | A | A                | A | A | A | A                                    |  |  |  |  |  |
| NOTES:                 |                  |             |          |             | DD REV                 | A         | B | C                | D | E | F | H                                    |  |  |  |  |  |
| REVISION HISTORY       |                  |             |          |             | CONT. REVISION HISTORY |           |   | MADE BY:         |   |   |   | DIGITAL                              |  |  |  |  |  |
| ENG   ECO NUMBER   REV |                  |             |          |             | ENG   ECO NUMBER   REV |           |   | DATE:            |   |   |   |                                      |  |  |  |  |  |
|                        |                  |             |          |             |                        |           |   | CHECKED BY:      |   |   |   | TITLE DRAWING DIRECTORY              |  |  |  |  |  |
|                        |                  |             |          |             |                        |           |   | DATE:            |   |   |   |                                      |  |  |  |  |  |
|                        |                  |             |          |             |                        |           |   | DESIGN ENGINEER: |   |   |   | DEUNA LINK MODULE                    |  |  |  |  |  |
|                        |                  |             |          |             |                        |           |   | DATE:            |   |   |   |                                      |  |  |  |  |  |
|                        |                  |             |          |             |                        |           |   | RESPONSIBLE ENG: |   |   |   |                                      |  |  |  |  |  |
|                        |                  |             |          |             |                        |           |   | DATE:            |   |   |   |                                      |  |  |  |  |  |
|                        |                  |             |          |             |                        |           |   | PRODUCTION ENG:  |   |   |   | SIZE   CODE   DOCUMENT NUMBER   REV. |  |  |  |  |  |
|                        |                  |             |          |             |                        |           |   | DATE:            |   |   |   | K   DD   M7793-0   H                 |  |  |  |  |  |
| SHEET 2 OF 3 MKO       |                  |             |          |             |                        |           |   |                  |   |   |   |                                      |  |  |  |  |  |

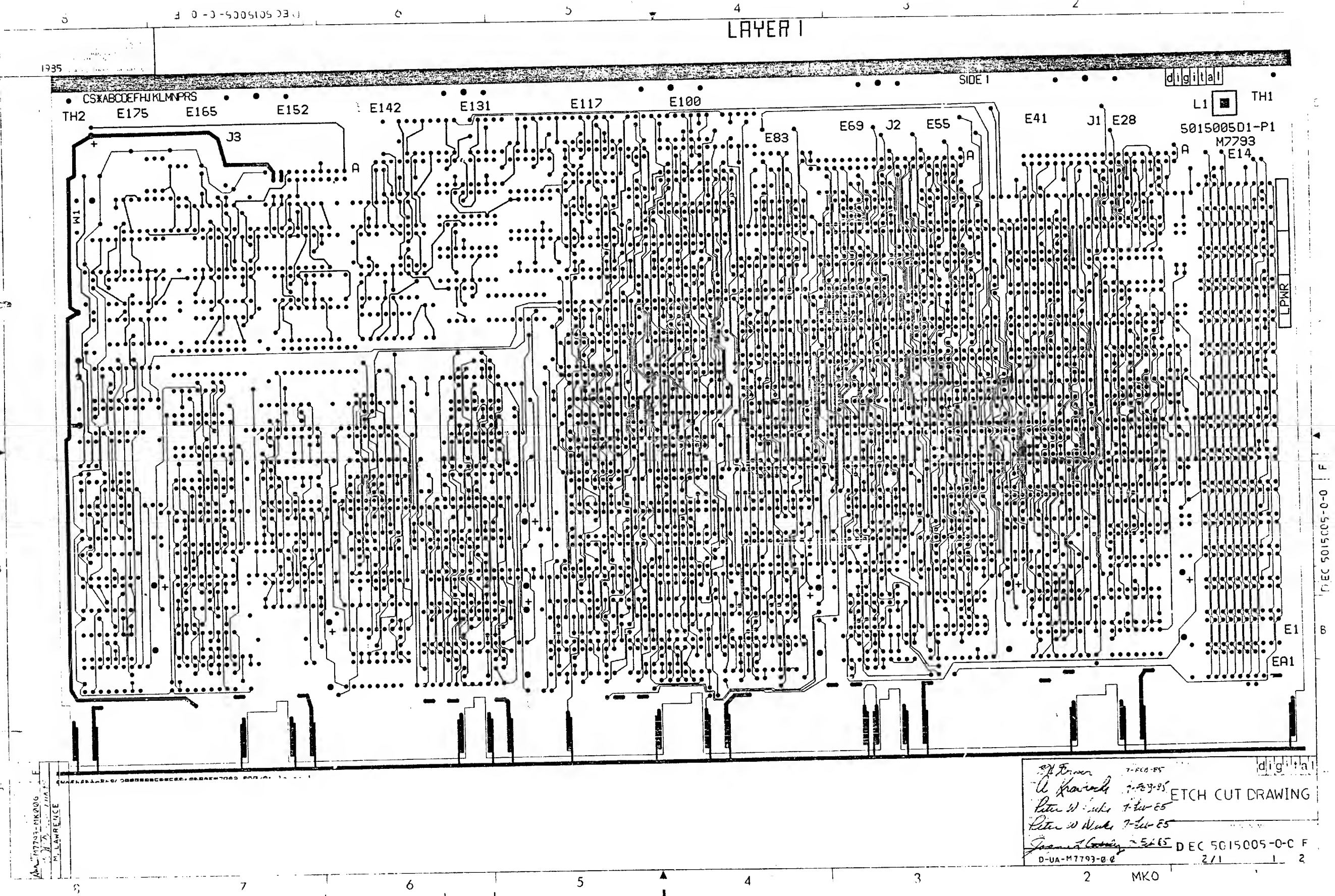
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## DRAWING DIRECTORY CONTINUED

| ITEM                   | DRAWING NO.       | NO. OF SHTS | PART NO. | DESCRIPTION | TYPE                   | REVISIONS |   |   |   |                  |   |   |  |  |                                      |  |     |  |  |
|------------------------|-------------------|-------------|----------|-------------|------------------------|-----------|---|---|---|------------------|---|---|--|--|--------------------------------------|--|-----|--|--|
|                        |                   |             |          |             |                        |           |   |   |   |                  |   |   |  |  |                                      |  |     |  |  |
| 41                     | K-CS-M7793-0-TTK  | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | A | A |  |  |                                      |  |     |  |  |
| 42                     | K-CS-M7793-0-TTL  | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | A | A |  |  |                                      |  |     |  |  |
| 43                     | K-CS-M7793-0-TTM  | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | A | A |  |  |                                      |  |     |  |  |
| 44                     | K-CS-M7793-0-IR1  | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | A | A |  |  |                                      |  |     |  |  |
| 45                     | K-CS-M7793-0-IR2  | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | A | A |  |  |                                      |  |     |  |  |
| 46                     | K-CS-M7793-0-LNKA | 1           |          | SCHEMATICS  |                        | A         | B | C | C | D                | D | D |  |  |                                      |  |     |  |  |
| 47                     | K-CS-M7793-0-LNKB | 1           |          | SCHEMATICS  |                        | A         | A | A | B | C                | C | C |  |  |                                      |  |     |  |  |
| 48                     | K-CS-M7793-0-LNKC | 1           |          | SCHEMATICS  |                        | A         | A | B | B | C                | C | C |  |  |                                      |  |     |  |  |
| 49                     | K-CS-M7793-0-LNKD | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | B | B |  |  |                                      |  |     |  |  |
| 50                     | K-CS-M7793-0-LNKE | 1           |          | SCHEMATICS  |                        | A         | B | B | B | B                | B | B |  |  |                                      |  |     |  |  |
| 51                     | K-CS-M7793-0-LNKF | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | B | B |  |  |                                      |  |     |  |  |
| 52                     | K-CS-M7793-0-LNKH | 1           |          | SCHEMATICS  |                        | A         | B | C | C | C                | D | D |  |  |                                      |  |     |  |  |
| 53                     | K-CS-M7793-0-LNKJ | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | A | A |  |  |                                      |  |     |  |  |
| 54                     | K-CS-M7793-0-LNKK | 1           |          | SCHEMATICS  |                        | A         | A | B | B | B                | C | C |  |  |                                      |  |     |  |  |
| 55                     | K-CS-M7793-0-LNKL | 1           |          | SCHEMATICS  |                        | A         | A | A | B | B                | C | C |  |  |                                      |  |     |  |  |
| 56                     | K-CS-M7793-0-LNKM | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | A | A |  |  |                                      |  |     |  |  |
| 57                     | K-CS-M7793-0-LNKN | 1           |          | SCHEMATICS  |                        | A         | A | A | B | B                | B | B |  |  |                                      |  |     |  |  |
| 58                     | K-CS-M7793-0-LNKP | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | A | A |  |  |                                      |  |     |  |  |
| 59                     | K-CS-M7793-0-LNKR | 1           |          | SCHEMATICS  |                        | A         | A | A | B | C                | C | C |  |  |                                      |  |     |  |  |
| 60                     | K-CS-M7793-0-LNKS | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | A | A |  |  |                                      |  |     |  |  |
| 61                     | K-CS-M7793-0-LNKT | 1           |          | SCHEMATICS  |                        | A         | A | A | A | B                | B | B |  |  |                                      |  |     |  |  |
| 62                     | K-CS-M7793-0-TTN  | 1           |          | SCHEMATICS  |                        | A         | A | A | A | A                | A | A |  |  |                                      |  |     |  |  |
| NOTES:                 |                   |             |          |             | DD REV                 | A         | B | C | D | E                | F | H |  |  |                                      |  |     |  |  |
| REVISION HISTORY       |                   |             |          |             | CONT. REVISION HISTORY |           |   |   |   | MADE BY:         |   |   |  |  | d i g i t a l                        |  |     |  |  |
| ENG   ECO NUMBER   REV |                   |             |          |             | ENG   ECO NUMBER   REV |           |   |   |   | DATE:            |   |   |  |  |                                      |  |     |  |  |
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|                        |                   |             |          |             |                        |           |   |   |   | DATE:            |   |   |  |  | DRAWING DIRECTORY                    |  |     |  |  |
|                        |                   |             |          |             |                        |           |   |   |   | DESIGN ENGINEER: |   |   |  |  | DEUNA LINK MODULE                    |  |     |  |  |
|                        |                   |             |          |             |                        |           |   |   |   | DATE:            |   |   |  |  |                                      |  |     |  |  |
|                        |                   |             |          |             |                        |           |   |   |   | RESPONSIBLE ENG: |   |   |  |  |                                      |  |     |  |  |
|                        |                   |             |          |             |                        |           |   |   |   | DATE:            |   |   |  |  |                                      |  |     |  |  |
|                        |                   |             |          |             |                        |           |   |   |   | PRODUCTION ENG:  |   |   |  |  | SIZE   CODE   DOCUMENT NUMBER   REV. |  |     |  |  |
|                        |                   |             |          |             |                        |           |   |   |   | DATE:            |   |   |  |  | K   DD   M7793-0   H                 |  |     |  |  |
|                        |                   |             |          |             |                        |           |   |   |   | SHEET 3 OF 3     |   |   |  |  |                                      |  | MKO |  |  |







1935

LAYER 1

SIDE 1

digital

CSXABCDEFGHIJKLMNPRS

TH2

E175

E165

E152

E142

E131

E117

E100

E83

E69

J2

E55

E41

J1

E28

5015005D1-P1

M7793

E14

TH1

LPWR

E1

EA1

AM-17793-MK200  
M. LAWRENCE

ETCH CUT DRAWING  
D-VA-M7793-0-0  
2/1 1 2

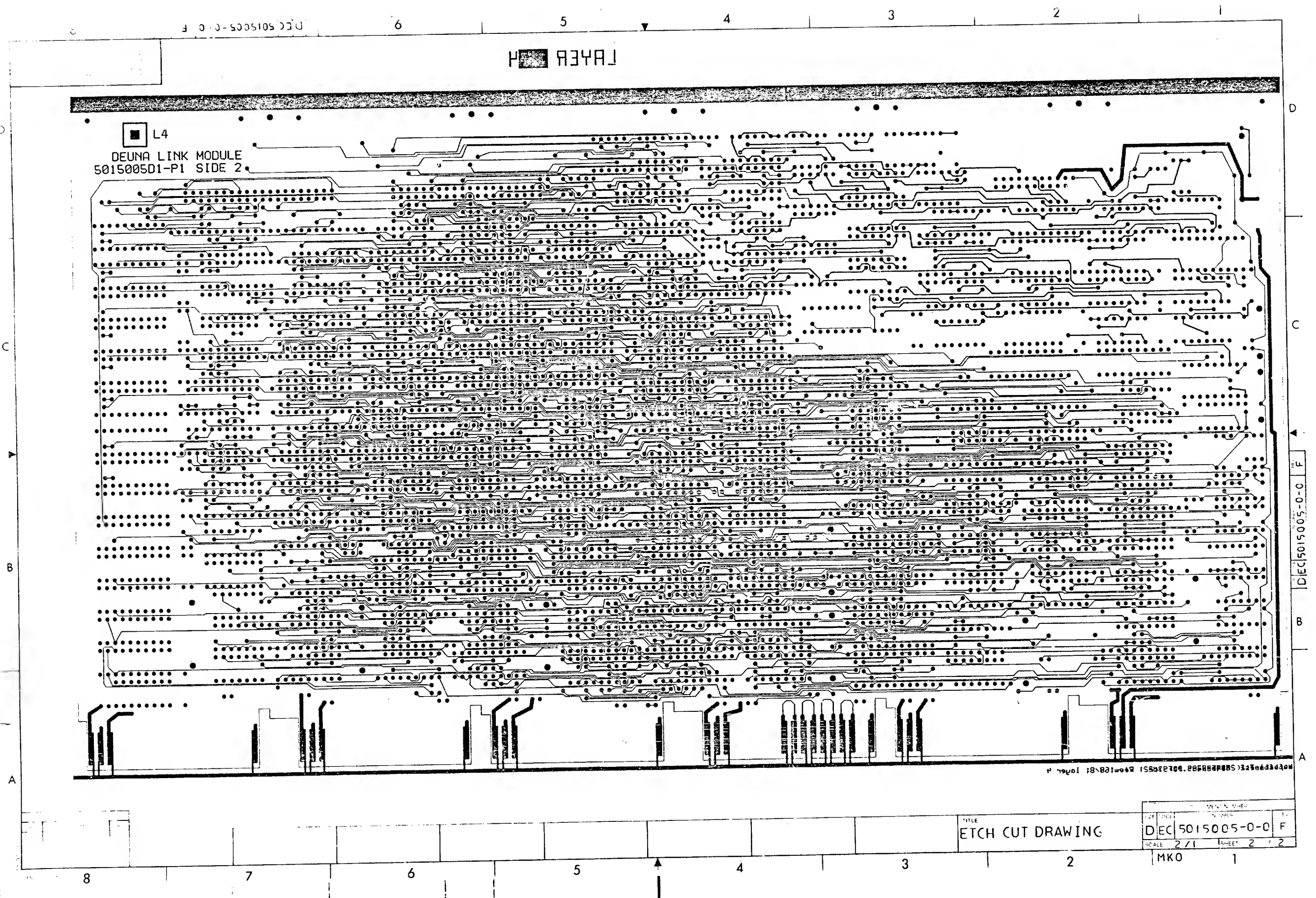
7-20-85  
7-23-85  
7-24-85  
7-24-85  
7-24-85

James J. Lawrence

DEC 5015005-0-C F

MKO





■ L4  
DEUNA LINK MODULE  
5015005D1-P1 SIDE 2

ETCH CUT DRAWING

|                 |  |       |  |       |  |    |  |
|-----------------|--|-------|--|-------|--|----|--|
| DRAWING NUMBER  |  | SCALE |  | SHEET |  | OF |  |
| DEC 5015005-0-0 |  | 2/1   |  | 2     |  | 2  |  |
| MKO             |  |       |  |       |  |    |  |

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## P A R T S   L I S T

SHEET A1 OF A4

| LINE                      | ITEM | TOP DOCUMENT     | PART NUMBER | MIN REV           | DESCRIPTION               | QTY | PER VARIATION | REFERENCE DESIGNATOR   |
|---------------------------|------|------------------|-------------|-------------------|---------------------------|-----|---------------|--|
| VARIATION REVISION LEVEL: |      |                  |             |                   |                           | 00  | E1            |  |
| 1                         | 1    | D-MD-5015005-0-0 | 5015005-00  | D                 | DRILL AND ETCH CUT        | 1   |               |  |
| 2                         | 2    |                  | 1010978-36  | .1                | MFD 50V 10% CER           | 1   |               | C2   |
| 3                         | 3    |                  | 1002424-00  | 1200.0 MMF        | 100V 5%200PPM MICA        | 2   |               | C4,C6  |
| 4                         | 4    |                  | 1000019-00  | 150.0 MMF         | 100V 5%200PPM MICA        | 2   |               | C5,C7  |
| 5                         | 5    |                  | 1012784-00  | .047 MFD          | 50V +80-20% CER           | 39  |               | C14,C15,C17,C18,C19,C20,C21,C22,<br>C23,C24,C25,C26,C27,C28,C29,C30,<br>C31,C32,C33,C34,C35,C36,C37,C38,<br>C39,C40,C41,C42,C43,C44,C45,C46,<br>C47,C48,C49,C50,C51,C52,C53<br>C54,C55,C56,C57,C58,C59,C60,C61,<br>C62,C63,C64,C65,C70-C78 |
| 6                         | 6    |                  | 1001010-00  | .01 MFD           | 50V +80-20% Z5U CER       | 21  |               | CONT C66,C67<br>C68  |
| 7                         | 7    |                  | 1005820-00  | 22.0 MMF          | 100V 5%200PPM MICA        | 2   |               | D3,D4,D5,D6,D7   |
| 8                         | 8    |                  | 1000010-00  | 39.0 MMF          | 100V 5%200PPM MICA        | 1   |               | E1,E2,E3,E4,E5,E6,E7,E8,E9,E10,<br>E11,E12,E13,E14,E27,E28   |
| 9                         | 9    |                  | 1100114-00  | PIV= 25 IO=135 MA |                           | 5   |               | CONT E15   |
| 10                        | 10   |                  | 2118054-03  | 16K MOS RAM       | 55NS 2                    | 16  |               | E16,E18,E19,E20,E59,E60,E76,<br>E134,E169  |
| 11                        | 11   |                  | 1913340-00  | 74S32             | OR GATE-QUAD 2IN          | 1   |               | CONT E17   |
| 12                        | 12   |                  | 1912851-00  | LS169             | COUNTER,SYNCH. UP/DO      | 9   |               | E21,E24,E25,E26,E39,E40,E55,<br>E156,E158  |
| 13                        | 13   |                  | 1912811-00  | LS21              | AND GATE-DUAL 4IN,PO      | 1   |               |  |
| 14                        | 14   |                  | 1912849-00  | LS161             | COUNTER,SYNCHR,4BIT       | 9   |               |  |
| 15                        | 15   | BLANK            | 23K4 -01    | ***               | THIS ITEM IS NOT USED *** | -   |               |  |
| 16                        | 16   |                  | 1912805-00  | LS08              | AND GATE-QUAD 2IN,PO      | 4   |               | E29,E38,E95,E167   |
| 17                        | 17   |                  | 1912820-00  | LS51              | A-O-I GATE 2-WIDE 2I      | 2   |               | E30,E44  |
| 18                        | 18   |                  | 1912803-00  | LS04              | INVERTER GATE,HEX         | 5   |               | E31,E35,E78,E79,E149   |
| 19                        | 19   | BLANK            | 23K5 -01    | ***               | THIS ITEM IS NOT USED *** | -   |               |  |
| 20                        | 20   |                  | 1912799-00  | LS00              | NAND-GATE-QUAD 2IN,P      | 3   |               | E33,E52,E80  |
| 21                        | 21   |                  | 1912824-00  | LS74              | FF-D DUAL,EDGE TRIGG      | 4   |               | E34,E42,E94,E161   |
| 22                        | 22   |                  | 1910550-00  | 74S174            | FF-D HEX                  | 5   |               | E41,E61,E101,E133,E159   |

| REVISION HISTORY |             |     | BASIC PART NO: M7793    |  | DRN: R LOVE           |  | DATE: 09-14-82       |  | D I G I T A L           |  |
|------------------|-------------|-----|-------------------------|--|-----------------------|--|----------------------|--|-------------------------|--|
| ENG              | ECO NUMBER  | REV | SECTION A OF A          |  | CHK'D: C COSTA        |  | DATE: 09-14-82       |  | TITLE PARTS LIST        |  |
| ---              | INITIAL     | A   | SECTION VARIATION INDEX |  | DES.ENG: M STECKLAIR  |  | DATE: 09-14-82       |  | DOCUMENT NUMBER         |  |
| ITE              | M7793-TW003 | B   | [A] 00                  |  | RESP.ENG. M. LAWRENCE |  | DATE: 11-APR-85      |  | K PL M7793-0-0          |  |
| INB              | M7793-TW004 | C   | [B]                     |  | MFG.ENG.: W. BROOKE   |  | DATE: 11-APR-85      |  | RELEASE DATE: 11-APR-85 |  |
| BRC              | M7793-MK005 | D   | [C]                     |  | ASSEMBLY NUMBER:      |  | TOP DOCUMENT NUMBER: |  | FILE NAME:              |  |
| ML               | M7793-MK006 | E   | [D]                     |  | ID-UA-M7793-0-0       |  | #K-DD-M7793-0        |  | MK1194.PLS              |  |
|                  |             |     | [E]                     |  |                       |  |                      |  | EDIT #                  |  |
|                  |             |     | [F]                     |  |                       |  |                      |  | 18                      |  |
|                  |             |     | [G]                     |  |                       |  |                      |  |                         |  |
|                  |             |     | [H]                     |  |                       |  |                      |  |                         |  |
|                  |             |     | [I]                     |  |                       |  |                      |  |                         |  |
|                  |             |     | [J]                     |  |                       |  |                      |  |                         |  |
|                  |             |     | [K]                     |  |                       |  |                      |  |                         |  |
|                  |             |     | [L]                     |  |                       |  |                      |  |                         |  |
|                  |             |     | [M]                     |  |                       |  |                      |  |                         |  |
|                  |             |     | [N]                     |  |                       |  |                      |  |                         |  |

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PARTS LIST

SHEET A2 OF A4

| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                      | QTY | PER VARIATION | REFERENCE DESIGNATOR            |
|------|------|--------------|-------------|---------|----------------------------------|-----|---------------|---------------------------------|
|      |      |              |             |         |                                  | 00  |               |                                 |
|      |      |              |             |         | VARIATION REVISION LEVEL:        | E1  |               |                                 |
| 23   | 23   |              | 1912810-00  |         | LS20 NAND GATE-DUAL 4IN          | 1   |               | E43                             |
| 24   | 24   |              | 1911911-00  |         | DEC 74S124 OSCILLATOR,DUAL VOLT  | 1   |               | E45                             |
| 25   | 25   |              | 1910534-00  |         | 74S04 INVERTER GATE-HEX 1I       | 5   |               | E46,E75,E87,E99,E115            |
| 26   | 26   |              | 1910537-00  |         | 74S11 AND GATE-TRIPLE 3INP       | 2   |               | E47,E106                        |
| 27   | 27   |              | 1912807-00  |         | LS10 NAND GATE-TRIPLE 3IN        | 1   |               | E48                             |
| 28   | 28   |              | 1912847-00  |         | LS157 MUX 1 OF 2(QUAD)           | 2   |               | E53,E82                         |
| 29   | 29   |              | 1915758-00  |         | LS166 SHIFT REG. 8BIT PARA       | 2   |               | E54,E69                         |
| 30   | 30   |              | 1914085-00  |         | 74S260 NOR GATE-DUAL,POS         | 2   |               | E57,E72                         |
| 31   | 31   |              | 1910539-00  |         | 74S20 NAND GATE-DUAL 4INPU       | 2   |               | E58,E88                         |
| 32   | 32   |              | 1910536-00  |         | 74S10 NAND GATE-TRIPLE 3IN       | 2   |               | E62,E109                        |
| 33   | 33   |              | 1912850-00  |         | LS164 SHIFT REG. 8BIT SERI       | 2   |               | E63,E67                         |
| 34   | 34   |              | 1914214-00  |         | LS374 FF-D OCTAL EDGE TRIG       | 5   |               | E64,E65,E66,E68,E98             |
| 35   | 35   |              | 1911983-00  |         | 74S133 NAND GATE-POSITIVE 1      | 3   |               | E71,E104,EA1                    |
| 36   | 36   |              | 1910957-00  |         | 74S175 FF-D QUAD COMMON CLO      | 1   |               | E73                             |
| 37   | 37   |              | 1910532-00  |         | 74S00 NAND GATE-QUAD 2IN         | 3   |               | E74,E111,E135                   |
| 38   | 38   |              | 1912646-00  |         | LS253 MUX 1 OF 4 (DUAL)          | 8   |               | E77,E124,E144,E145,E147,E148,   |
|      |      |              |             |         |                                  |     | CONT          | E154,E155                       |
| 39   | 39   |              | 1913671-00  |         | 74S374 FF-D,OCTAL,TRI STATE      | 2   |               | E81,E120                        |
| 40   | 40   |              | 1912746-00  |         | DEC 74S37 NAND GATE-QUAD 2IN     | 1   |               | E83                             |
| 41   | 41   |              | 1910548-00  |         | 74S157 MUX 1 OF 2 (QUAD)         | 2   |               | E86,E112                        |
| 42   | 42   |              | 1911712-00  |         | 74S51 AND-OR GATE-INVERT D       | 1   |               | E89                             |
| 43   | 43   |              | 1912801-00  |         | LS02 NOR-GATE-QUAD 2IN           | 2   |               | E90,E139                        |
| 44   | 44   |              | 1912389-00  |         | 74S08 AND GATE-QUAD 2IN,PO       | 1   |               | E91                             |
| 45   | 45   |              | 1912697-00  |         | LS174 FF-D HEX W/CLEAR           | 4   |               | E93,E108,E110,E123              |
| 46   | 46   |              | 1912816-00  |         | LS32 OR GATE-QUAD 2IN,POS        | 2   |               | E96,E138                        |
| 47   | 47   |              | 1300005-01  |         | R NETWORK 13-1K 5.0 % 14PIN      | 1   |               | E97                             |
| 48   | 48   |              | 1915019-00  |         | 74S38 NAND BUFFER-QUAD 2IN       | 1   |               | E100                            |
| 49   | 49   |              | 1914082-00  |         | 74S163 COUNTER,SYNCH UP/DOW      | 7   |               | E105,E122,E137,E146,E153,E157,  |
|      |      |              |             |         |                                  |     | CONT          | E166                            |
| 50   | 50   |              | 1910544-00  |         | 74S74 FF-D DUAL,EDGE TRIGG       | 5   |               | E107,E136,E168,E170,E171        |
| 51   | 51   |              | 1514962-00  |         | TPQ2907 PNP 500MW SI 40 100      | 4   |               | E113,E114,E116,E117             |
| 52   | 52   |              | 1915697-00  |         | RAM 256X4 TRI-STATE              | 3   |               | E118,E119,E121                  |
| 53   | 53   |              | 1912813-00  |         | LS27 NOR GATE-TRIPLE 3IN         | 1   |               | E125                            |
| 54   | 54   |              | 1912808-00  |         | LS11 AND GATE-TRIPLE 3IN         | 1   |               | E126                            |
| 55   | 55   |              | 1918353-00  |         | 10231 FF-D MASTER-SLAVE          | 5   |               | E128,E130,E151,E174,E175        |
| 56   | 56   |              | 1911402-00  |         | 10105 OR/NOR GATE,2-3-2          | 4   |               | E129,E131,E141,E152             |
| 57   | 57   |              | 1912096-00  |         | DEC 74S86 XOR GATE,QUAD 2IN      | 1   |               | E132                            |
| 58   | 58   |              | 1611601-00  |         | DELAY= 50NS,TAPPED LINE          | 1   |               | E140                            |
| 59   | 59   |              | 1913220-00  |         | 10216 RECEIVER,TRIPLE LINE       | 2   |               | E142,E165                       |
| 60   | 60   |              | 1811660-00  |         | OSCILLATOR, XTAL 20.000 MHZ      | 1   |               | E143                            |
| 61   | 61   |              | 1911579-00  |         | 8641 TRANSCEIVER,BUS,QUA         | 1   |               | E160                            |
| 62   | 62   |              | 1619248-00  |         | DELAY= 25/74NS ECL MULTI-LOGIC   | 1   |               | E163                            |
| 63   | 63   |              | 1911404-00  |         | 10107 XOR/NOR GATE,3-2IN         | 1   |               | E164                            |
| 64   | 64   |              | 1913009-00  |         | 4N36 OPTO COUPLED ISLTR          | 1   |               | E172                            |
| 65   | 65   |              | 1912388-00  |         | 74S02 NOR GATE-QUAD 2IN,PO       | 1   |               | E173                            |
| 66   | 66   |              | 1209941-02  |         | PCB,HEADER 40PIN(2X20).100CC 90D | 2   |               | J1,J2                           |
| 67   | 67   |              | 1209941-13  |         | PCB,HEADER 19PIN(2X10).100CC 90D | 1   |               | J3                              |
| 68   | 68   |              | 1301322-00  |         | 180.0 .25 W 5.0 % CF             | 27  |               | R1,R32,R56,R78,R85,R86,R87,R89, |

| D | I | G | I | T | A | L | TITLE             | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|---|---|---|---|---|---|---|-------------------|----------------|------|------|-----------------|-----|
|   |   |   |   |   |   |   | DEUNA LINK MODULE |                | K    | PL   | M7793-0-0       | E   |

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## P A R T S L I S T

SHEET A3 OF A4

| LINE ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                      | VARIATION   | REVISION LEVEL | QTY PER VARIATION | REFERENCE DESIGNATOR   |
|-----------|--------------|-------------|---------|----------------------------------|-------------|----------------|-------------------|--|
|           |              |             |         |                                  |             |                | 00                |  |
|           |              |             |         |                                  |             |                | E1                |  |
| 69        | 69           | 1300247-00  |         | 120.0                            | .25 W 5.0 % | CF             | 19                | CONT R90,R91,R95,R100,R108,R111,R112,<br>CONT R114,R115,R118,R124,R137,R138,<br>CONT R146,R151,R152,R183,R171,R188<br>R2,R67,R102,R116,R125,R126,R129,<br>CONT R136,R157,R158,R159,R160,R161,<br>CONT R162,R163,R168,R178,R172,R4<br>R3,R5,R6,R8,R14,R19,R20,R128<br>R7,R9,R11,R12,R132,R134,R135,<br>CONT R141,R142,R186,R187<br>R10,R43,R45,R61,R63,R185<br>R13,R16,R21,R22,R27,R28,R37,R40,<br>CONT R41,R52<br>R15,R23,R24<br>R17,R48,R51<br>R18,R26,R30,R33,R36,R38,R47,R49,<br>CONT R50,R54,R57,R58,R107,R123,R140,<br>CONT R153,R154<br>R25,R31,R42<br>R29<br>R34,R59,R117,R131,R139,R155,R156<br>R35,R64,R65,R83,R84,R88,R96,R97,<br>CONT R103,R109,R110,R143,R147,R165,<br>CONT R180,R182<br>R44,R46,R60,R62,R66,R70,R77,R80,<br>CONT R93,R94<br>R53,R55,R69,R71,R76,R79 |
| 70        | 70           | 1300229-00  |         | 100.0                            | .25 W 5.0 % | CF             | 8                 |  |
| 71        | 71           | 1300365-00  |         | 1.0 K                            | .25 W 5.0 % | CF             | 11                |  |
| 72        | 72           | 1302388-00  |         | 2.0 K                            | .25 W 5.0 % | CF             | 6                 |  |
| 73        | 73           | 1302957-00  |         | 121.0                            | .25 W 1.0 % | RN55D-F10      | 10                |  |
| 74        | 74           | 1302872-00  |         | 681.0                            | .25 W 1.0 % | RN55D-F1       | 3                 |  |
| 75        | 75           | 1303036-00  |         | 56.20                            | .25 W 1.0 % | RN55D-F10      | 3                 |  |
| 76        | 76           | 1301972-00  |         | 270.0                            | .25 W 5.0 % | CF             | 17                |  |
| 77        | 77           | 1301421-00  |         | 15.0                             | .25 W 5.0 % | CF             | 3                 |  |
| 78        | 78           | 1300479-00  |         | 10.0 K                           | .25 W 5.0 % | CF             | 1                 |  |
| 79        | 79           | 1301775-00  |         | 820.0                            | .25 W 5.0 % | CF             | 7                 |  |
| 80        | 80           | 1300316-00  |         | 470.0                            | .25 W 5.0 % | CF             | 16                |  |
| 81        | 81           | 1313150-00  |         | 430.0                            | .25 W 5.0 % | CF             | 10                |  |
| 82        | 82           | 1305121-00  |         | 38.30                            | .25 W 1.0 % | RN55D-F10      | 6                 |  |
| 83        | 83           | BLANK       |         | *** THIS ITEM IS NOT USED ***    |             |                | -                 |  |
| 84        | 84           | 1303179-00  |         | 8.20 K                           | .25 W 5.0 % | CF             | 1                 | R74  |
| 85        | 85           | 1300271-00  |         | 220.0                            | .25 W 5.0 % | CF             | 1                 | R106   |
| 86        | 86           | 1300356-00  |         | 820.0                            | .50 W10.0 % | CF             | 2                 | R127,R170  |
| 87        | 87           | 1300309-00  |         | 390.0                            | .25 W 5.0 % | CF             | 1                 | R149   |
| 88        | 88           | 1300432-00  |         | 3.0 K                            | .25 W 5.0 % | CF             | 1                 | R184   |
| 89        | 89           | 9009185-00  |         | JUMPER, WIRE, INSULATED, BLACK B |             |                | 1                 | W1   |
| 90        | 90           | 1012084-01  |         | 8 MFD 25V +75-10% AL EL          |             |                | 8                 | C1,C3,C8,C9,C10,C11,C12,C13  |
| 91        | 91           | 1216988-02  |         | HANDLE,MODULE,HEX TWO EJECTORS   |             |                | 1                 |  |
| 92        | 92           | 9009000-00  |         | EYELET,ROLLED 0.1210DX0.156      |             |                | 12                |  |
| 93        | 93           | 1302391-00  |         | 20.0 K                           | .25 W 5.0 % | CF             | 1                 | R144   |
| 94        | 94           | 1304837-00  |         | 24.0 K                           | .25 W 5.0 % | CF             | 1                 | R68  |
| 95        | 95           | 1300488-00  |         | 12.0 K                           | .25 W 5.0 % | CF             | 1                 | R75  |
| 96        | 96           | 9105740-55  |         | *** THIS ITEM IS NOT USED ***    |             |                | -                 |  |
| 97        | 97           | 23034K4-00  |         | K4-01                            |             |                | 1                 | E50  |
| 98        | 98           | 23035K4-00  |         | K4-01                            |             |                | 1                 | E22  |
| 99        | 99           | 23036K4-00  |         | K4-01                            |             |                | 1                 | E23  |
| 100       | 100          | 23037K4-00  |         | K4-01                            |             |                | 2                 | E102,E103  |
| 101       | 101          | 23025K5-00  |         | K5-01                            |             |                | 1                 | E49  |
| 102       | 102          | 23026K5-00  |         | K5-01                            |             |                | 1                 | E51  |
| 103       | 103          | 23027K5-00  |         | K5-01                            |             |                | 1                 | E36  |
| 104       | 104          | 23028K5-00  |         | K5-01                            |             |                | 1                 | E37  |

DIGITAL

TITLE DEUNA LINK MODULE

SECTION A OF A

|      |      |                 |     |
|------|------|-----------------|-----|
| SIZE | CODE | DOCUMENT NUMBER | REV |
| K    | PL   | M7793-0-0       | E   |

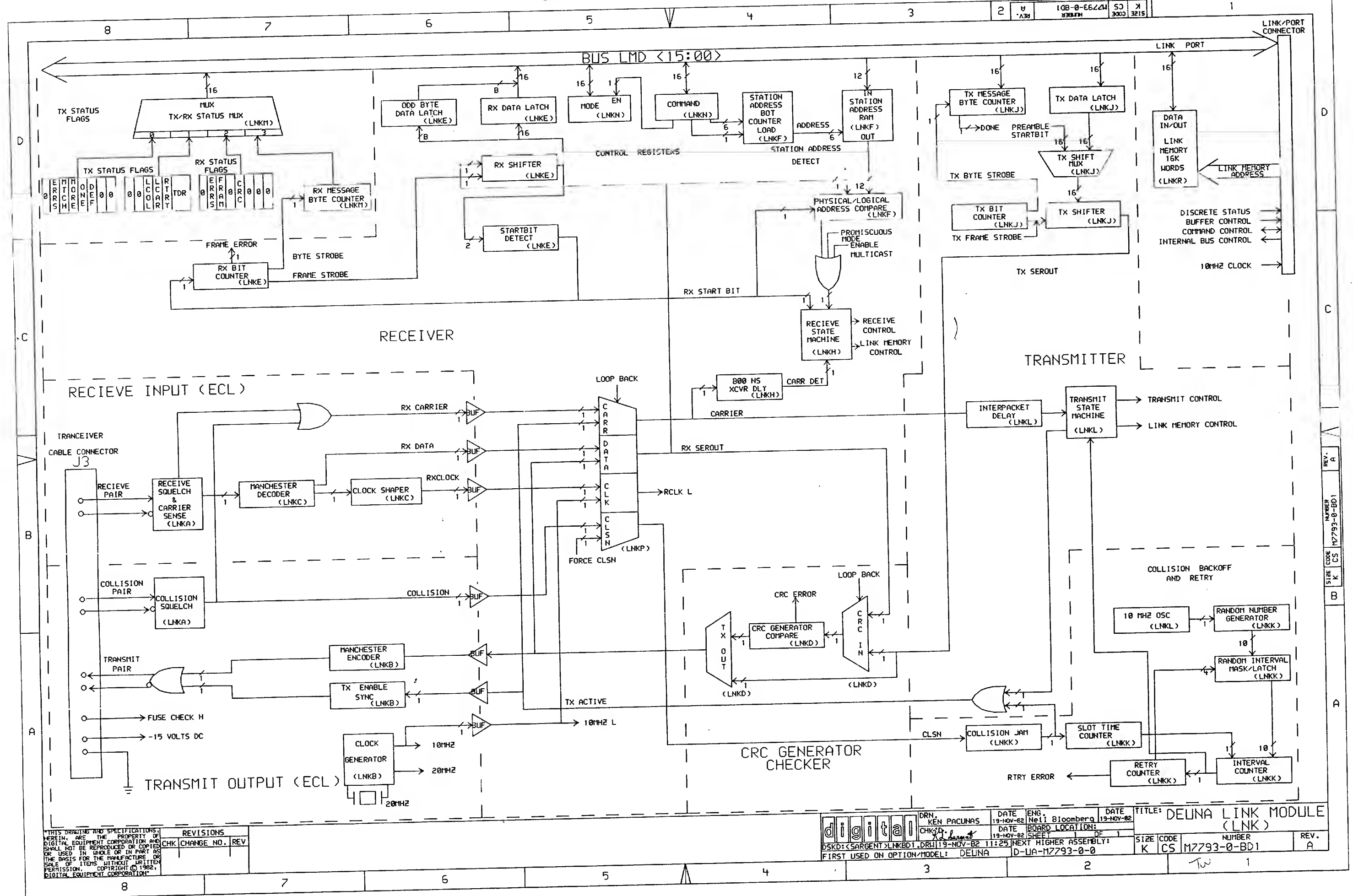
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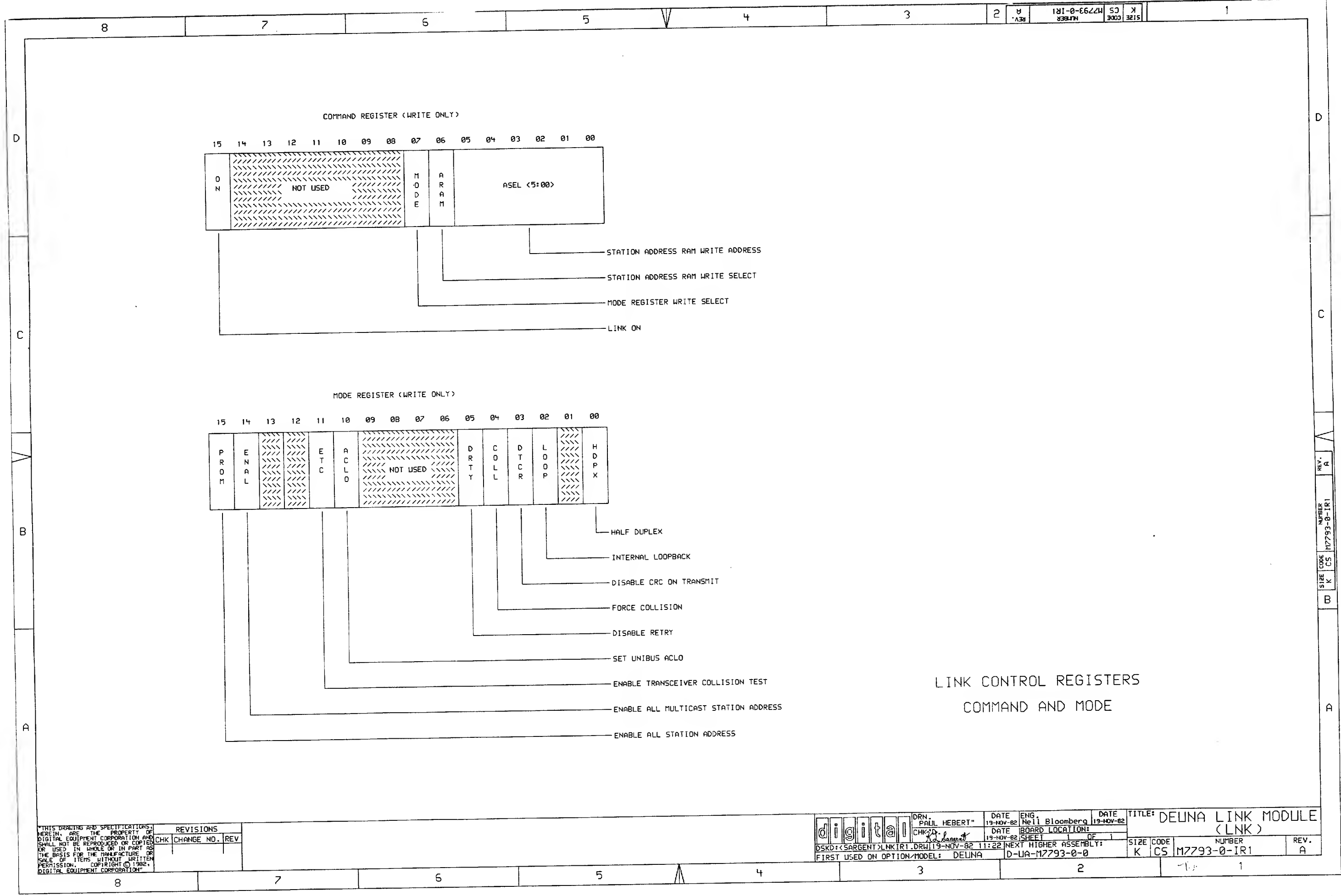
P A R T S   L I S T

SHEET A4 OF A4

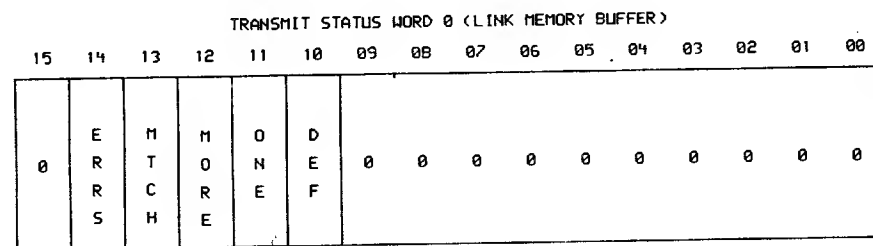
| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN<br>REV | DESCRIPTION | VARIATION REVISION LEVEL: | QTY PER VARIATION<br>00<br>E1 | REFERENCE DESIGNATOR |
|------|------|--------------|-------------|------------|-------------|---------------------------|-------------------------------|----------------------|
| 105  | 105  |              | 23029K5-00  |            | K5-01       |                           | 1                             | E32                  |
| 106  | 106  |              | 23030K5-00  |            | K5-01       |                           | 2                             | E56,E70              |
| 107  | 107  |              | 23031K5-00  |            | K5-01       |                           | 1                             | E92                  |
| 108  | 108  |              | 23033K5-00  |            | K5-01       |                           | 2                             | E84,E85              |

|   |   |   |   |   |   |   |       |                   |                |      |      |                 |     |
|---|---|---|---|---|---|---|-------|-------------------|----------------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE | DEUNA LINK MODULE | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   |       |                   |                | K    | PL   | M7793-0-0       | E   |

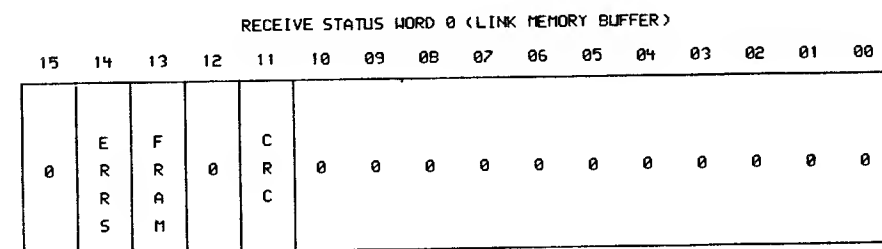




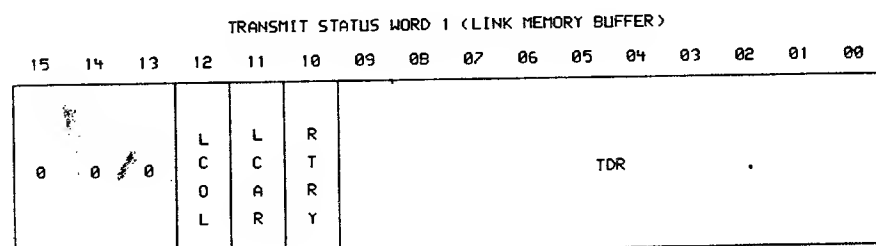




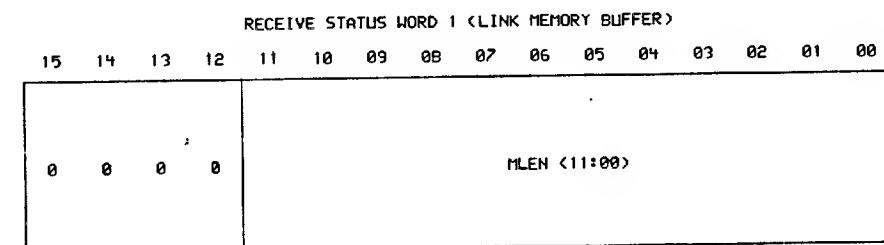
TRANSMISSION DEFERRED  
ONE COLLISION  
MORE THAN ONE COLLISION  
STATION ADDRESS MATCH ON TRANSMISSION  
ERROR SUMMARY



CRC ERROR  
FRAMING ERROR  
ERROR SUMMARY



CABLE FAULT DISTANCE COUNT  
TRANSMISSION ABORTED-16 ATTEMPTS  
LOSS OF CARRIER  
TRANSMISSION ABORTED-LATE COLLISION



MESSAGE LENGTH

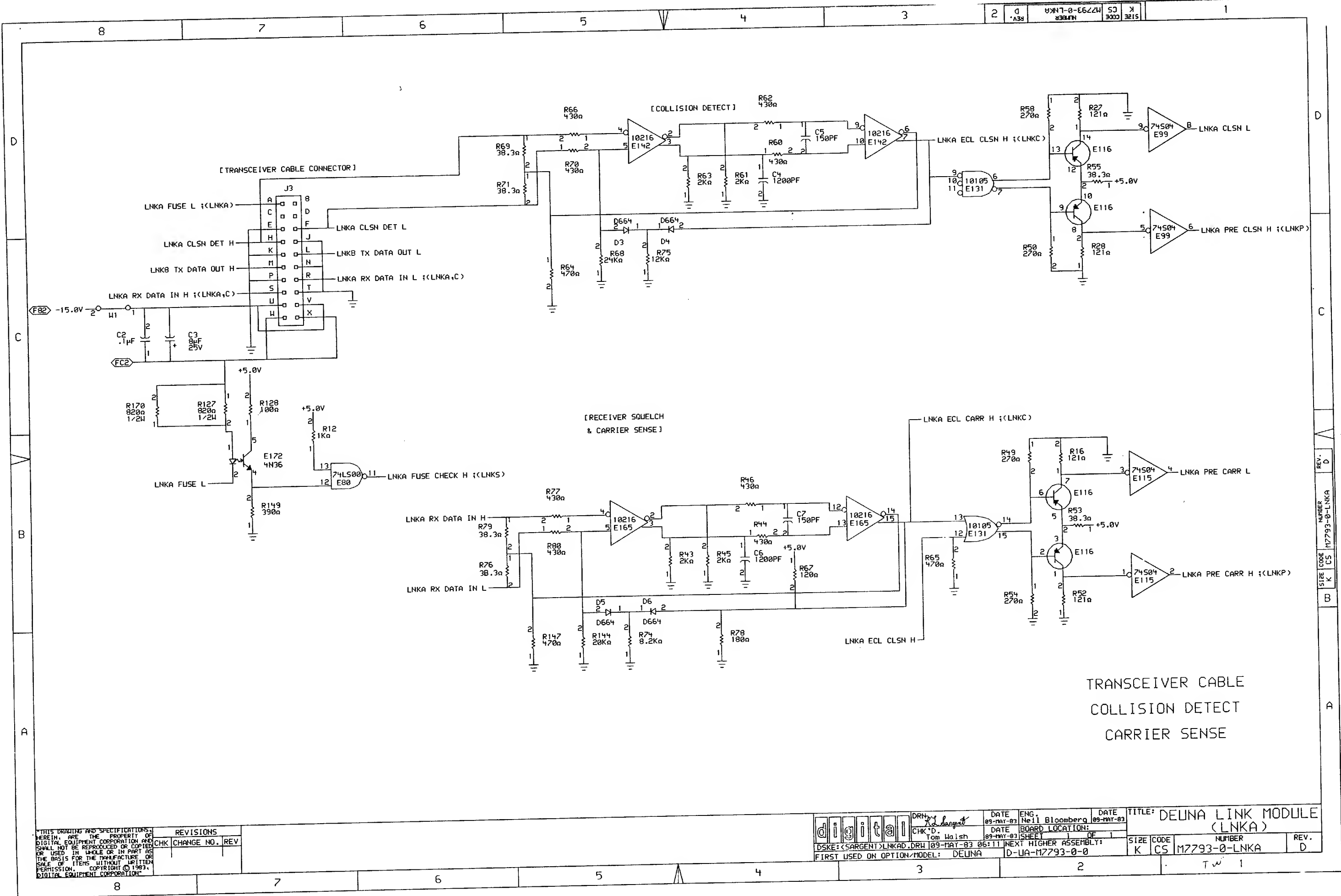
LINK STATUS REGISTER FORMAT  
(WORDS 0 AND 1 OF LINK MEMORY BUFFER)

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| CHK       | CHANGE NO. | REV |

|  |                     |                |                     |                |                                 |      |             |
|--|---------------------|----------------|---------------------|----------------|---------------------------------|------|-------------|
| digital  | DRN. PAUL HEBERT    | DATE 19-NOV-82 | ENG. Neil Bloomberg | DATE 19-NOV-82 | TITLE: DELUNA LINK MODULE (LNK) |      |             |
|  | CHKD. X. J. Sargent | DATE 19-NOV-82 | BOARD LOCATION: 1   | SHEET 1 OF 1   |                                 |      |             |
| OSKD: <SARGENT>LNK1R2.DRW19-NOV-82 11:23 NEXT HIGHER ASSEMBLY: |                     |                |                     |                | SIZE                            | CODE | NUMBER      |
| FIRST USED ON OPTION/MODEL: DELUNA D-UA-M7793-0-0              |                     |                |                     |                | K                               | CS   | M7793-0-IR2 |
|  |                     |                |                     |                |                                 |      | REV. A      |



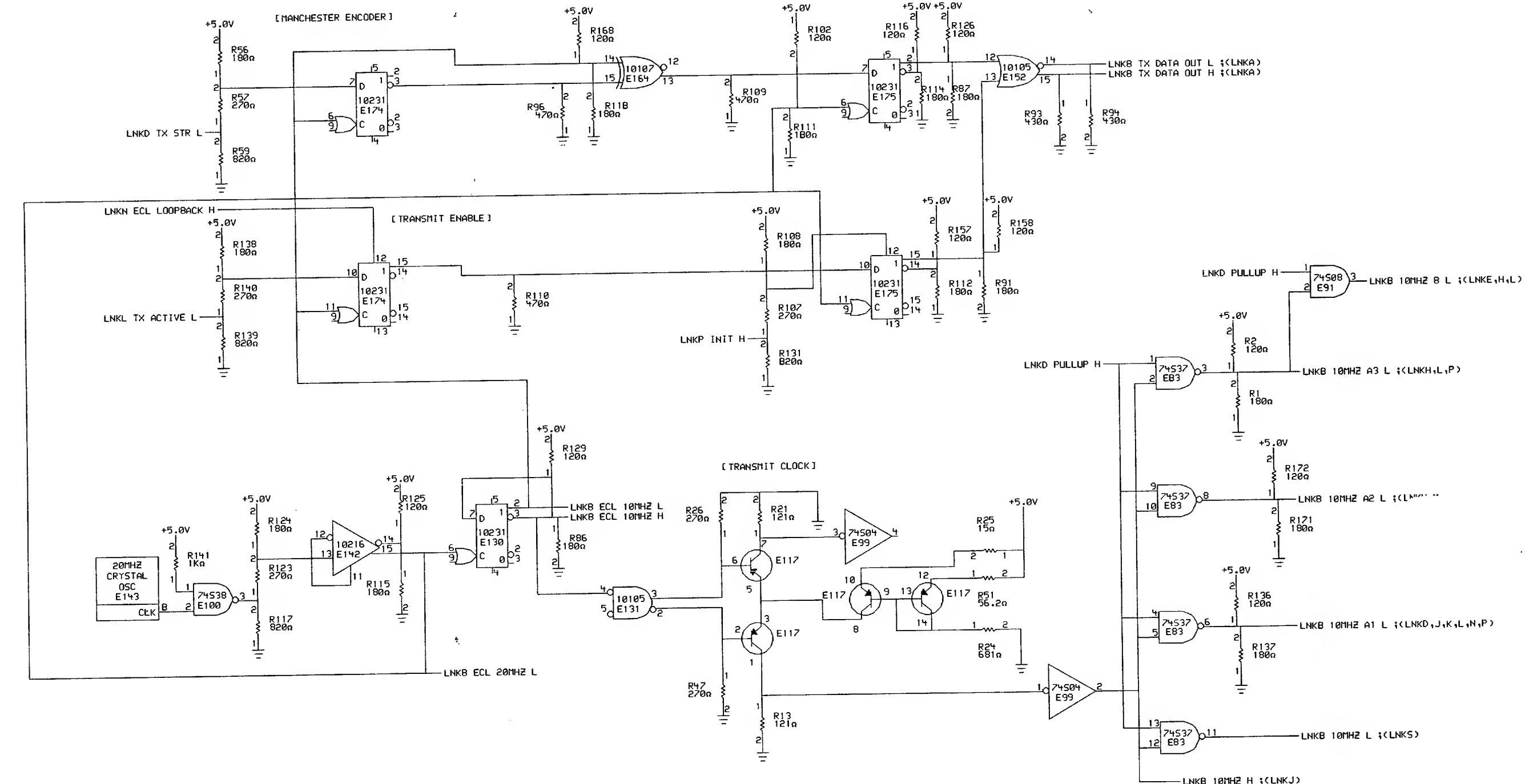


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|           |            |     |

|   |                            |                 |                              |                 |                                 |
|---|----------------------------|-----------------|------------------------------|-----------------|---------------------------------|
| digital   | DRN: <i>Neil Bloomberg</i> | DATE: 09-MAY-83 | ENG: Neil Bloomberg          | DATE: 09-MAY-83 | TITLE: DEUNA LINK MODULE (LNKA) |
|   | CHK'D: Tom Walsh           | DATE: 09-MAY-83 | BOARD LOCATION: SHEET 1 OF 1 |                 |                                 |
| DSKE: <SARGENT>LNKA.DRW 09-MAY-83 06:11 NEXT HIGHER ASSEMBLY: |                            |                 |                              |                 | SIZE: K                         |
| FIRST USED ON OPTION/MODEL: DEUNA D-UA-M7793-0-0              |                            |                 |                              |                 | CODE: CS                        |
|   |                            |                 |                              |                 | NUMBER: M7793-0-LNKA            |
|   |                            |                 |                              |                 | REV: D                          |

TW 1

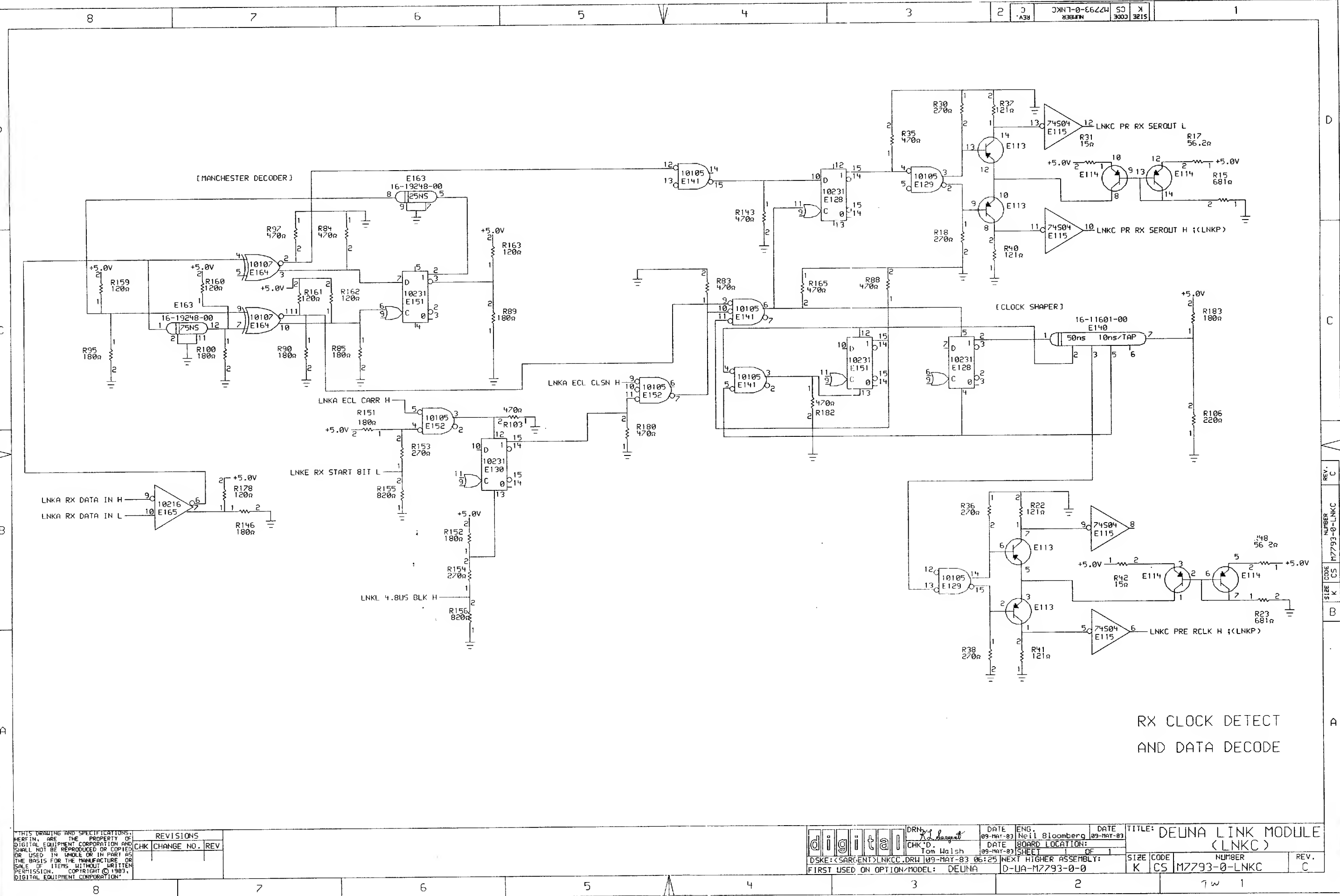


TX ENCODE  
TX CLOCK

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| CHK       | CHANGE NO. | REV |
|           |            |     |

|   |  |                        |                 |                        |                 |                                 |          |
|---|--|------------------------|-----------------|------------------------|-----------------|---------------------------------|----------|
| digital                                 |  | DRN: <i>R. Sargent</i> | DATE: 89-MAY-83 | ENG: Neil Bloomberg    | DATE: 89-MAY-83 | TITLE: DEUNA LINK MODULE (LNKB) |          |
| CHK: D.                                 |  | Tom Walsh              | DATE: 89-MAY-83 | BOARD LOCATION: 1 OF 1 | SHEET: 1 OF 1   |                                 |          |
| DSKE: SARGENT LNKB.DRW 119-JAN-83 13:03 |  |                        |                 | NEXT HIGHER ASSEMBLY:  |                 | SIZE: K                         | CODE: CS |
| FIRST USED ON OPTION/MODEL: DEUNA       |  |                        |                 | ID-UA-M7793-0-0        |                 | NUMBER: M7793-0-LNKB            | REV. C   |



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| CHK       | CHANGE NO. | REV |
|           |            |     |

|   |                            |                 |                              |                 |                                    |
|---|----------------------------|-----------------|------------------------------|-----------------|------------------------------------|
| digital   | DRN: <i>Neil Bloomberg</i> | DATE: 09-MAY-83 | ENG: Neil Bloomberg          | DATE: 09-MAY-83 | TITLE: DEUNA LINK MODULE<br>(LNKC) |
|   | CHK'D: Tom Walsh           | DATE: 09-MAY-83 | BOARD LOCATION: SHEET 1 OF 1 |                 |                                    |
| DSKE: (SARGENT) LNKC.DRW 09-MAY-83 06:25 NEXT HIGHER ASSEMBLY: D-UA-M7793-0-0 |                            |                 |                              |                 |                                    |
| FIRST USED ON OPTION/MODEL: DEUNA   |                            |                 |                              |                 |                                    |
| SIZE  | CODE                       | NUMBER          |                              | REV.            |                                    |
| K   | CS                         | M7793-0-LNKC    |                              | C               |                                    |







DRN  
H. H. H.  
CHK'D. FLC  
A, DRN 19-FEB-85  
MODEL: DELIN

|           |                       |      |
|-----------|-----------------------|------|
| DATE      | ENG.                  | DA   |
| 19-FEB-85 | NEIL BLOOMBERG        | 19-F |
| DATE      | BOARD LOCATION:       |      |
| 19-FEB-85 | SHEET 1 OF            |      |
| 10:03     | NEXT HIGHER ASSEMBLY: |      |
| A         | D-UA-M7793-0-0        |      |

1

|     |   |
|-----|---|
| 111 |   |
| 512 | K |

|    |   |
|----|---|
| EE | C |
|    |   |

DE  
MODE  
CS

M7

NA  
279

3-8

LN  
UM8E  
D-L

$$\frac{NK}{KF}$$
$$\frac{M}{F} > \frac{F}{F}$$

101

RE  
E

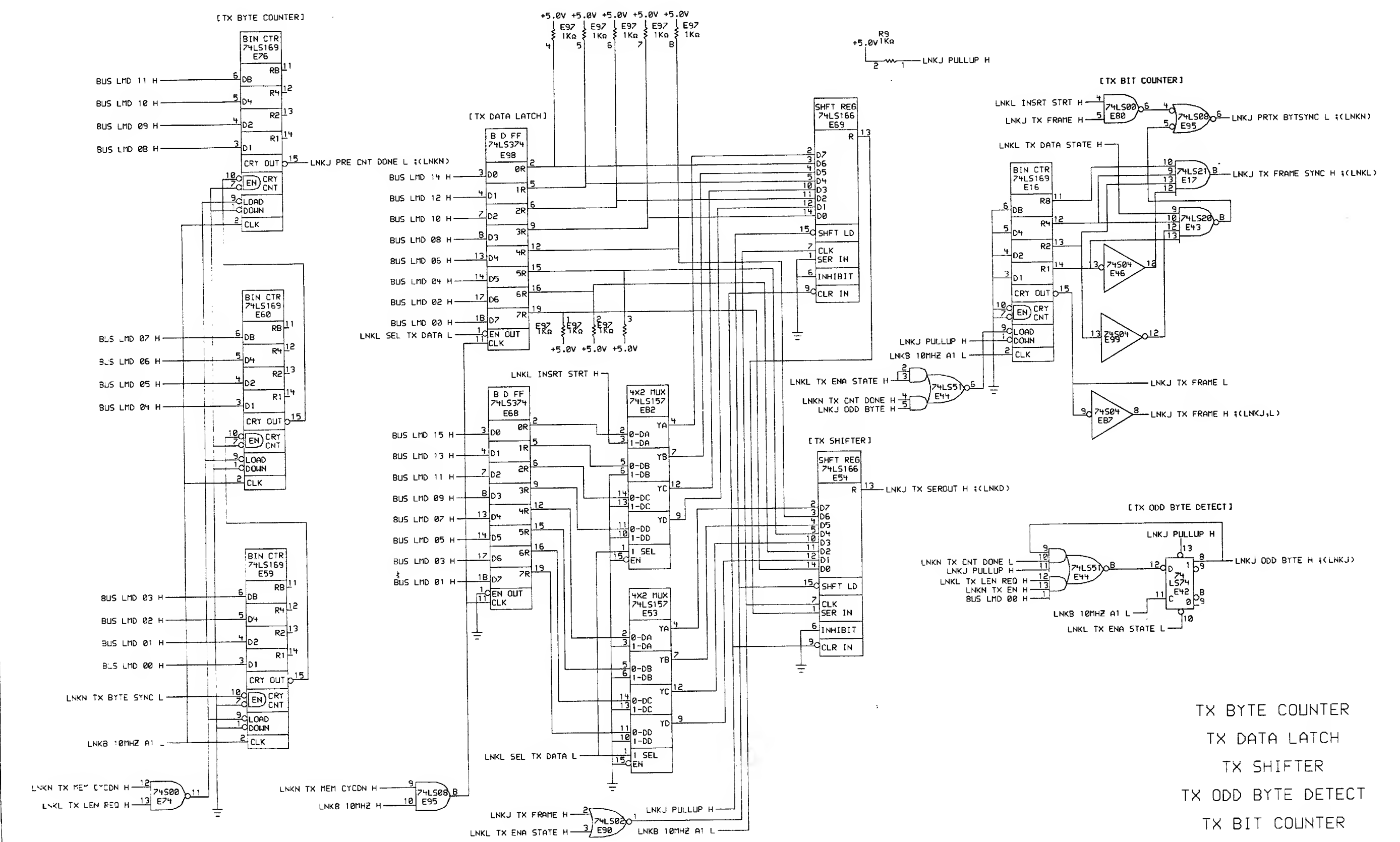
3

11

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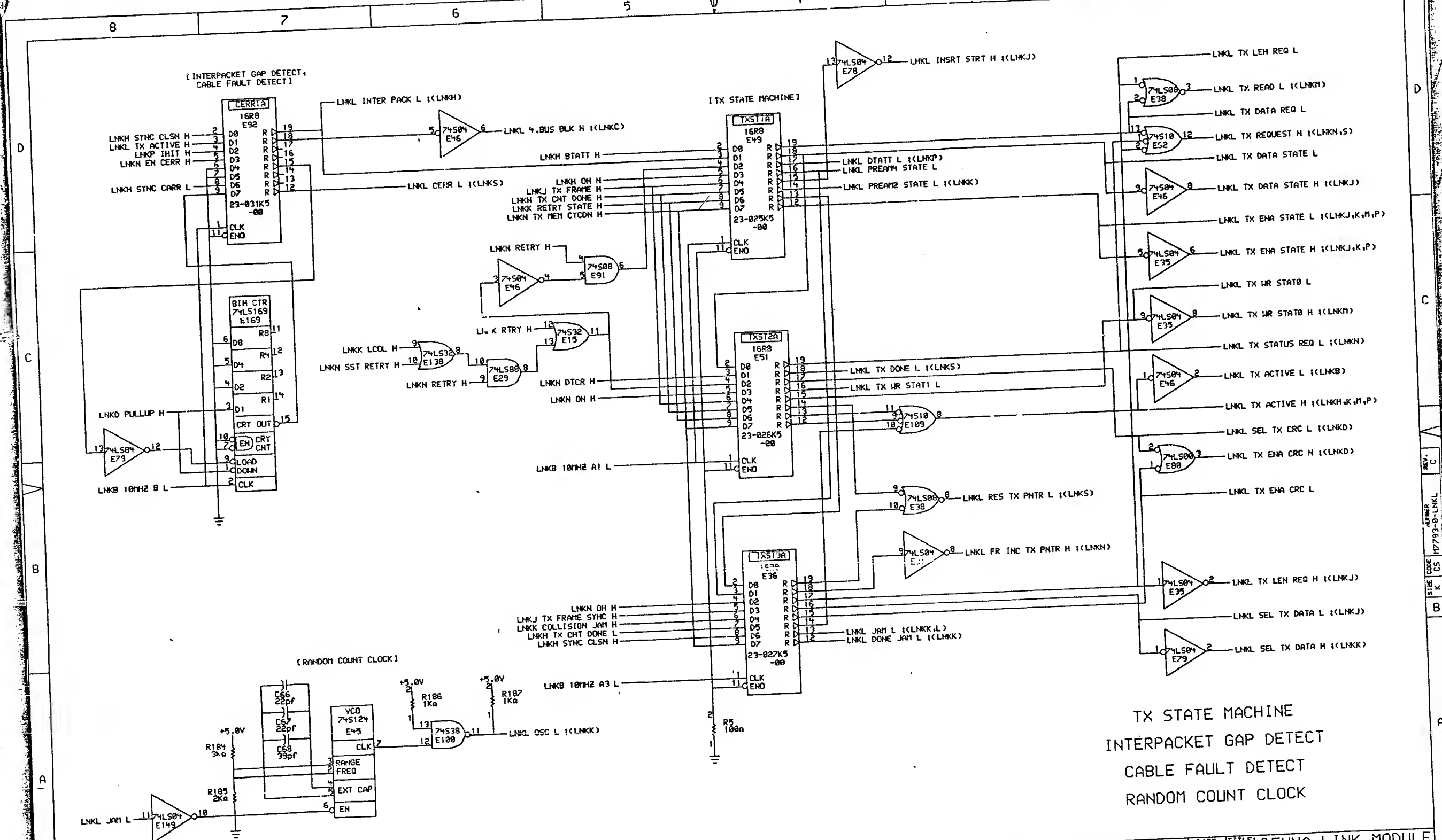
10











TX STATE MACHINE  
INTERPACKET GAP DETECT  
CABLE FAULT DETECT  
RANDOM COUNT CLOCK

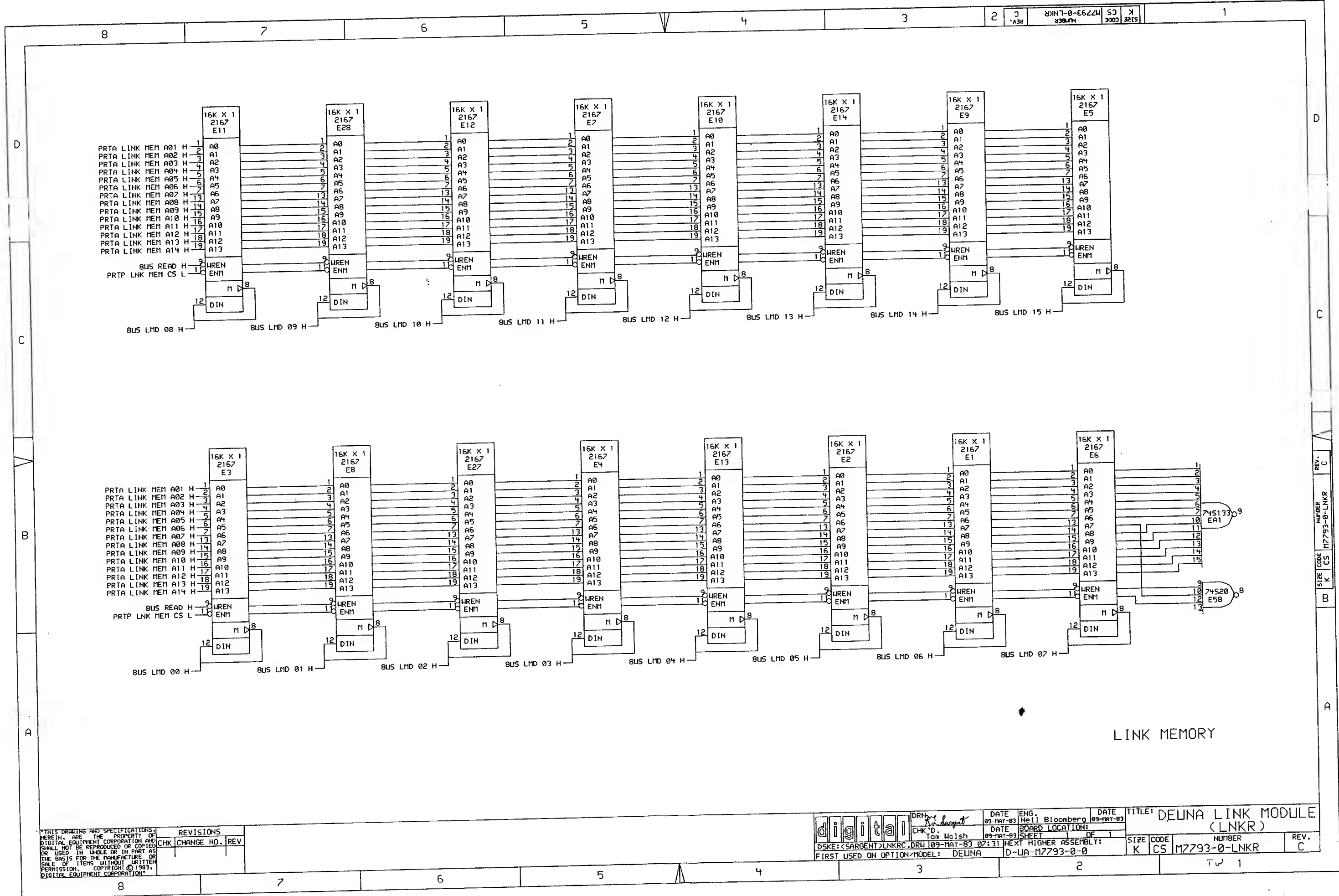
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| 2   | 2   | 2   | 2   |
| 3   | 3   | 3   | 3   |
| 4   | 4   | 4   | 4   |
| 5   | 5   | 5   | 5   |
| 6   | 6   | 6   | 6   |
| 7   | 7   | 7   | 7   |
| 8   | 8   | 8   | 8   |
| 9   | 9   | 9   | 9   |
| 10  | 10  | 10  | 10  |

|   |      |           |           |           |           |           |           |           |           |
|---|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| DRN.  | H.D. | DATE      | ENG.      | DATE      | ENG.      | DATE      | ENG.      | DATE      | ENG.      |
| CHK'D.  | FLC  | 19-FEB-85 | 19-FEB-85 | 19-FEB-85 | 19-FEB-85 | 19-FEB-85 | 19-FEB-85 | 19-FEB-85 | 19-FEB-85 |
| XTRAC (DENSHPRE) LNKL.B. DRUITS-FEB-85 10116 NEXT HIGHER ASSEMBLY |      |           |           |           |           |           |           |           |           |
| FIRST USED ON OPTION/MODEL: DELINA D-UA-M7793-0-0                 |      |           |           |           |           |           |           |           |           |
| TITLE: DEUNA LINK MODULE (LNKL)                                   |      |           |           |           |           |           |           |           |           |
| SIZE CODE NUMBER REV.   |      |           |           |           |           |           |           |           |           |
| K CS M7793-0-LNKL C   |      |           |           |           |           |           |           |           |           |
| MKO 1   |      |           |           |           |           |           |           |           |           |





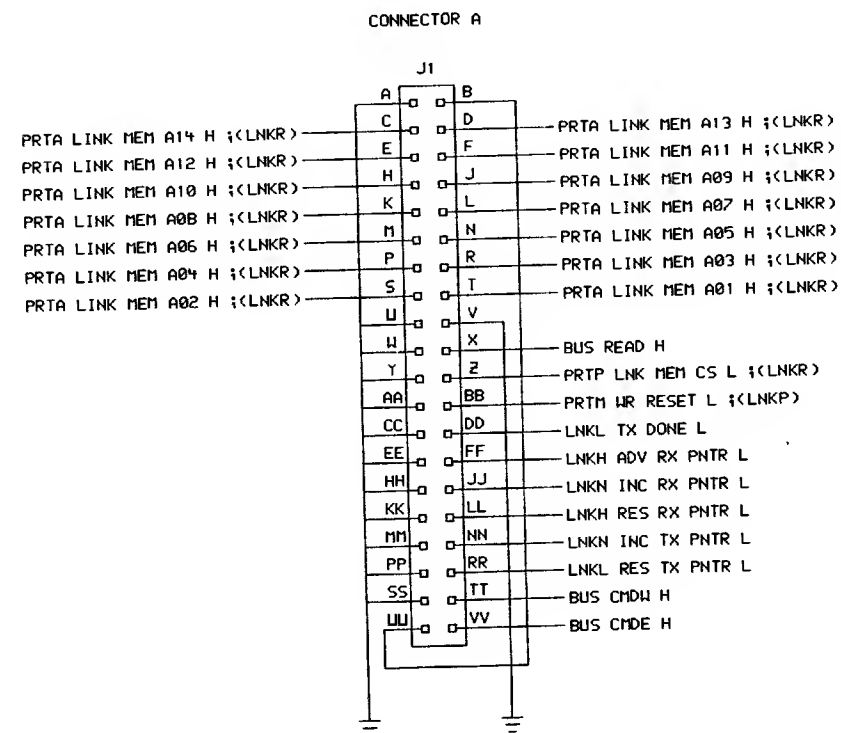
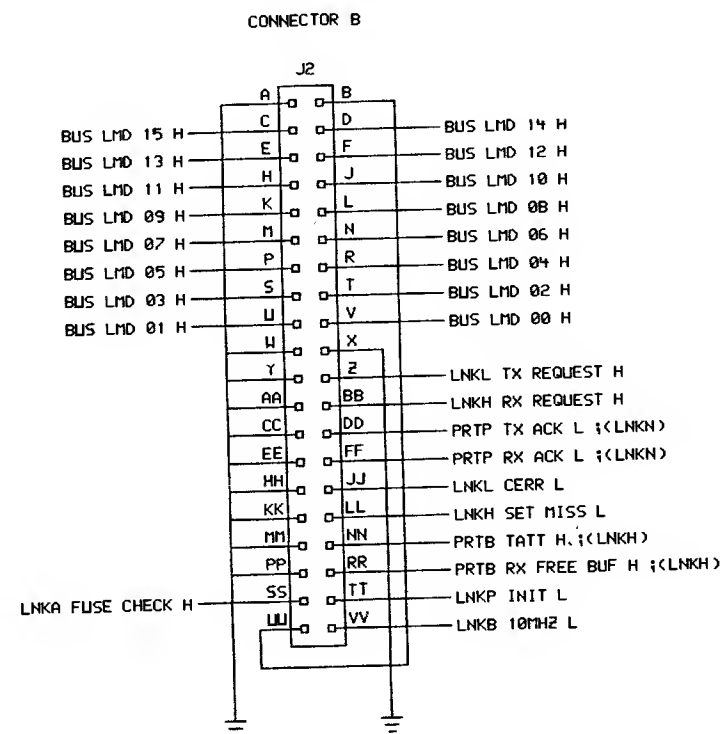
|      |      |              |      |
|------|------|--------------|------|
| SIZE | CODE | NUMBER       | REV. |
| K    | CS   | M7793-0-LNKP | A    |



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|           |                |

|                                   |  |                 |                                      |                 |                                 |          |  |
|-----------------------------------|--|-----------------|--------------------------------------|-----------------|---------------------------------|----------|--|
| digital                           | DRN: <i>Neil Bloomberg</i>               | DATE: 09-MAY-83 | ENG: Neil Bloomberg                  | DATE: 09-MAY-83 | TITLE: DEUNA LINK MODULE (LNKR) |          |  |
|                                   | CHK'D: Tom Walsh                         | DATE: 09-MAY-83 | BOARD LOCATION: 1 OF 1               |                 | SIZE: K                         | CODE: CS |  |
|                                   | DSKE: <SARGENT>LNKRC.DRW 09-MAY-83 07:31 |                 | NEXT HIGHER ASSEMBLY: D-UA-M7793-0-0 |                 | NUMBER: M7793-0-LNKR            | REV: C   |  |
| FIRST USED ON OPTION/MODEL: DEUNA |  |                 |                                      |                 |                                 | TW 1     |  |



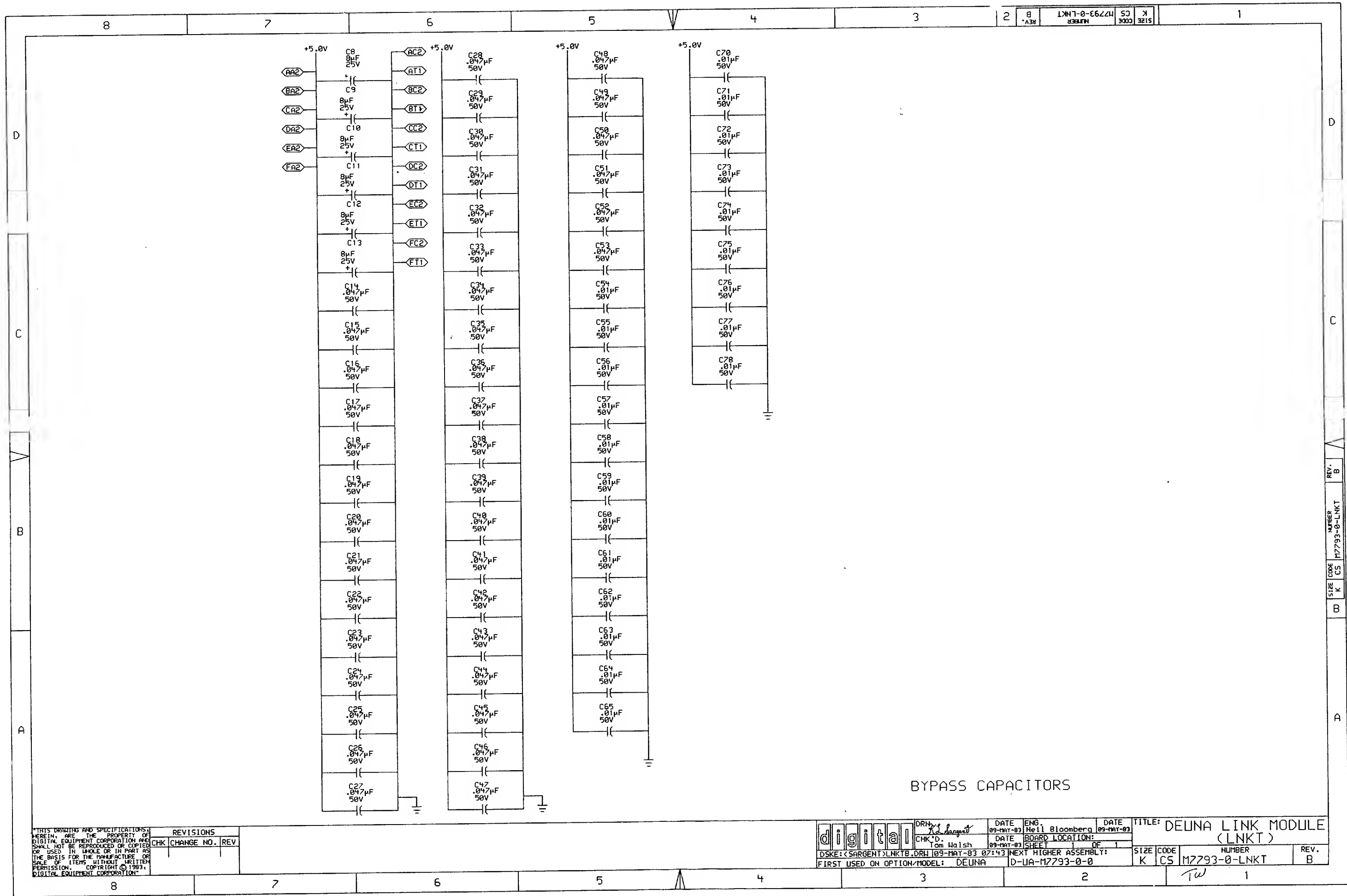
| LINK MODULE FORWARD REFERENCE |                |
|-------------------------------|----------------|
| LINK OUTPUT                   | PORT CS        |
| LNKL TX REQUEST H             | PRTB           |
| LNKH RX REQUEST H             | PRTB           |
| LNKL CERR L                   | PRTB           |
| LNKH SET MISS L               | PRTB           |
| LNKP INIT L                   | PRTB,C,E,M,N,P |
| BUS READ H                    | PRTB,P         |
| BUS LMD <15:00> H             | PRTA,C         |
| LNKB 10MHZ L                  | PRTA,C,N,P     |
| LNKL TX DONE L                | PRTB           |
| BUS CMDH H                    | PRTB           |
| BUS CMDE H                    | PRTB           |
| LNKH ADV RX PNTR L            | PRTB           |
| LNKN INC RX PNTR L            | PRTB           |
| LNKH RES RX PNTR L            | PRTB           |
| LNKN INC TX PNTR L            | PRTB           |
| LNKL RES TX PNTR L            | PRTB           |

PORT/LINK INTERCONNECT CABLE CONNECTORS

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|-----------------------------------|------------------------|-----------------|--------------------------------------|-----------------|---------------------------------|----------|
| digital                           | DRN: <i>Ed. Langat</i> | DATE: 24-NOV-82 | ENG: Neil Bloomberg                  | DATE: 24-NOV-82 | TITLE: DEUNA LINK MODULE (LNKS) |          |
|                                   | CHK'D: Tom Walsh       | DATE: 24-NOV-82 | BOARD LOCATION: 1 OF 1               |                 | SIZE: K                         | CODE: CS |
| DSKD: <SARGENT>LNKS.DRW           |                        | 24-NOV-82 06:33 | NEXT HIGHER ASSEMBLY: D-1A-M7793-0-0 |                 | NUMBER: M7793-0-LNKS            | REV: A   |
| FIRST USED ON OPTION/MODEL: DEUNA |                        |                 |                                      |                 |                                 |          |



BYPASS CAPACITORS

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| CHK       | CHANGE NO. | REV |
|           |            |     |

digital

DRN: *K. Sargent*  
CHK'D: Tom Walsh

|           |                 |           |
|-----------|-----------------|-----------|
| DATE      | ENG.            | DATE      |
| 09-MAY-83 | Neil Bloomberg  | 09-MAY-83 |
| DATE      | BOARD LOCATION: |           |
| 09-MAY-83 | SHEET 1 OF 1    |           |

DSKE: <SARGENT>LNKTB.DRW 109-MAY-83 07:43 NEXT HIGHER ASSEMBLY: D-UA-M7793-0-0

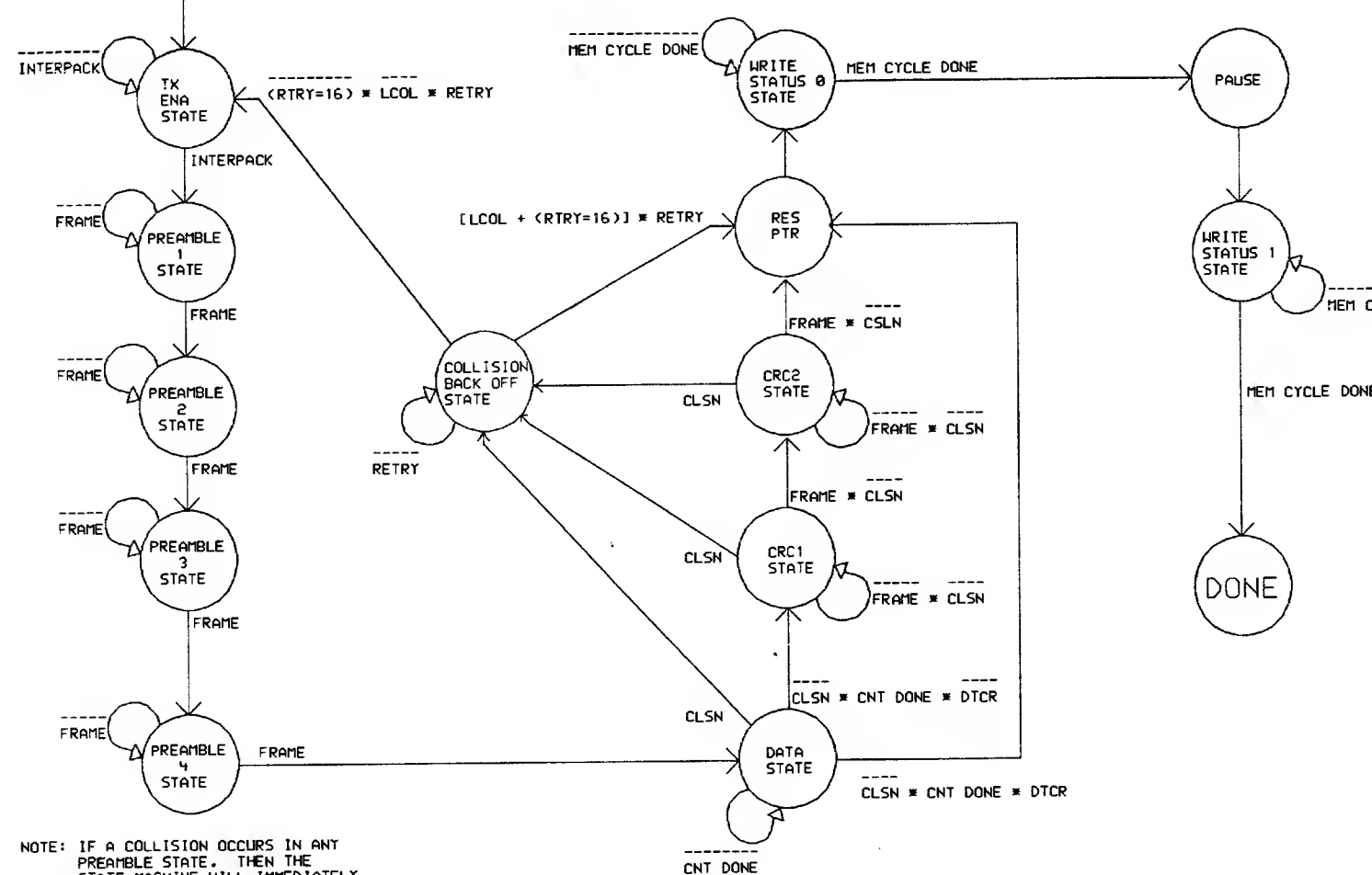
TITLE: DEUNA LINK MODULE (LNKT)

|      |      |              |      |
|------|------|--------------|------|
| SIZE | CODE | NUMBER       | REV. |
| K    | CS   | M7793-0-LNKT | B    |

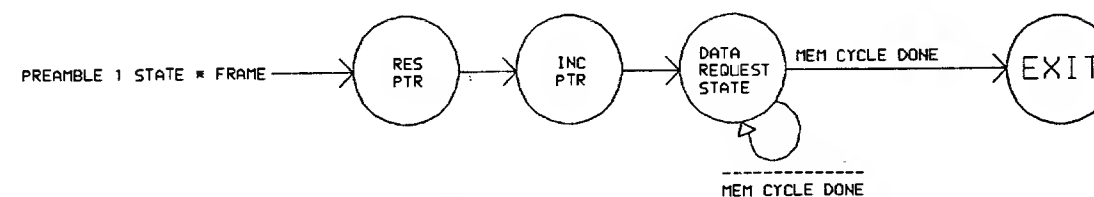
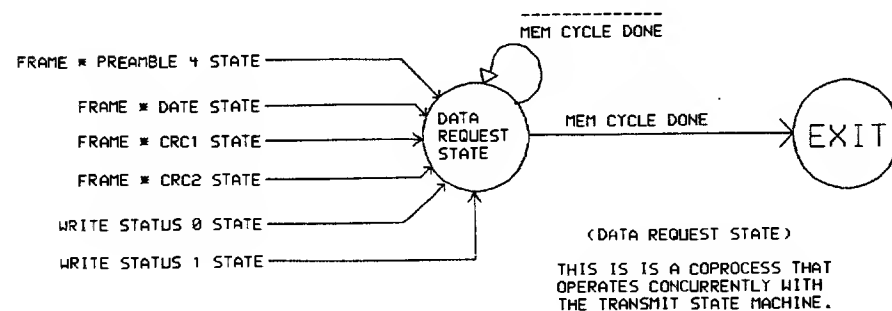
Tw 1



ON \* TATT



NOTE: IF A COLLISION OCCURS IN ANY PREAMBLE STATE, THEN THE STATE MACHINE WILL IMMEDIATELY ENTER THE COLLISION BACK OFF STATE. UPON COMPLETION OF PREAMBLE 4 STATE.



## TRANSMIT STATE MACHINE INPUTS

| PROCESS STATE  | REFERENCE SIGNAL    | REFERENCE PIN |
|----------------|---------------------|---------------|
| INTERPACK      | LNKL INTERPACK L    | E92-19        |
| ON             | LNKN ON H           | E110-2        |
| TATT           | LNKH BTATT H        | E81-5         |
| FRAME          | LNKJ TX FRAME H     | E87-8         |
| CLSN           | LNKH SYNC CLSN H    | E81-12        |
| RETRY          | LNKN RETRY H        | E61-15        |
| RTRY           | LNKK RTRY H         | E21-15        |
| CNT DONE       | LNKN TX CNT DONE L  | E61-12        |
| MEM CYCLE DONE | LNKN TX MEM CYCDN H | E41-2         |
| DTOR           | LNKN DTOR H         | E93-7         |

## TRANSMIT STATE MACHINE OUTPUTS

| PROCESS STATE        | REFERENCE SIGNAL     | REFERENCE PIN |
|----------------------|----------------------|---------------|
| TX ENA STATE         | LNKL TX ENA STATE L  | E49-12        |
| TX PREAMBLE 1 STATE  | LNKL PREAM 1 STATE L | E49-13        |
| TX PREAMBLE 2 STATE  | LNKL TX LEN REQ L    | E36-17        |
| TX PREAMBLE 3 STATE  | LNKL PREAM 2 STATE L | E49-14        |
| TX PREAMBLE 4 STATE  | LNKL PREAM 3 STATE L | E49-15        |
| DATA STATE           | LNKL PREAM 4 STATE L | E49-16        |
|                      | LNKL TX DATA STATE L | E49-18        |
|                      | LNKL TX ENA CRC L    | E36-15        |
|                      | LNKL SEL TX DATA L   | E36-16        |
| CRC 1 STATE          | NONE - LOW ASSERTED  | E51-12        |
| CRC 2 STATE          | NONE - LOW ASSERTED  | E51-13        |
| RES PTR STATE        | LNKL RES TX PNTR L   | E38-8         |
| INC PTR STATE        | LNKN INC TX PNTR L   | E41-12        |
| WRITE STATUS 0 STATE | LNKL TX WR STAT0 L   | E51-15        |
| WRITE STATUS 1 STATE | LNKL TX WR STAT1 L   | E51-16        |
| DATA REQUEST STATE   | LNKL TX REQUEST H    | E62-12        |
|                      | PP TX ACK L          | PORT          |
|                      | BUS READ H           | E100-6        |
| DONE                 | LNKN TX MEM CYCDN H  | E41-2         |
|                      | LNKL TX DONE L       | E51-18        |

TRANSMIT STATE MACHINE-LNKL  
STATE DIAGRAM-1

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## REVISIONS

CHK CHANGE NO. REV

digital

DRN.  
D. BLANCHARDDATE  
17-NOV-82ENG.  
Neil BloombergDATE  
17-NOV-82TITLE:  
DEUNA LINK MODULE

(LNK)

DSKD: (SARGENT) LNKS01.DRW 05-NOV-82 16:08 NEXT HIGHER ASSEMBLY:  
FIRST USED ON OPTION/MODEL: DEUNA

D-UA-M7793-0-0

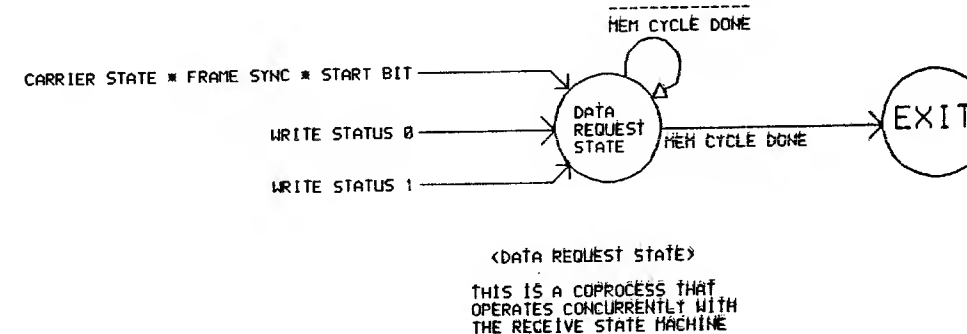
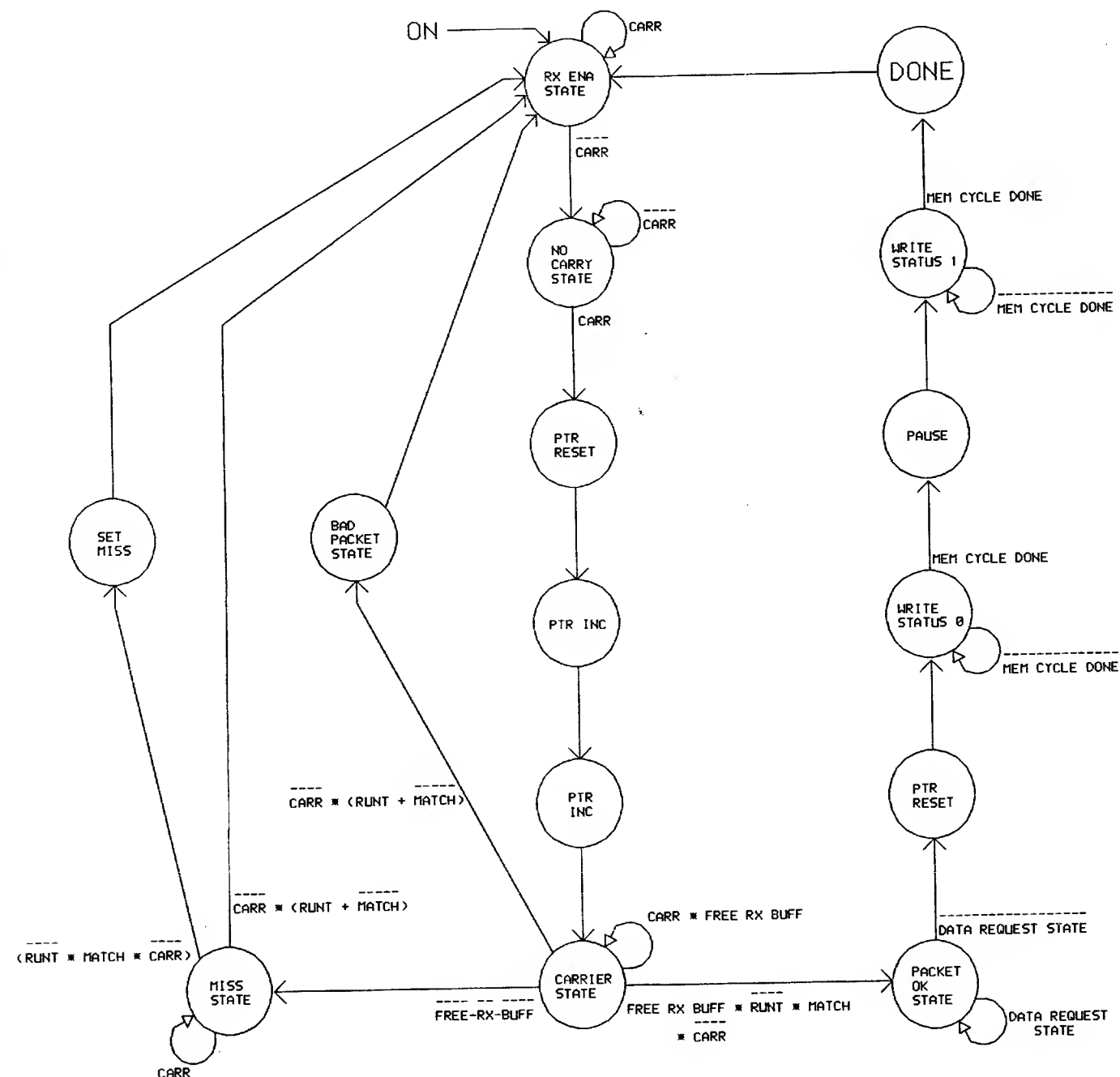
SIZE  
KCODE  
CSNUMBER  
M7793-0-SD1REV.  
A

## RECEIVE STATE MACHINE INPUTS

| PROCESS STATE  | REFERENCE SIGNAL     | REFERENCE PIN |
|----------------|----------------------|---------------|
| CARRIER        | LNKH DLY CAR DET H   | E61-5         |
| ON             | LNKH ON H            | E118-2        |
| RUNT           | NONE - HIGH ASSERTED | E138-6        |
| MATCH          | LNKH RX MATCH H      | E133-15       |
| FREE RX BUFF   | PB RX FREE BUFF H    | PORT          |
| MEM CYCLE DONE | LNKH RX MEM CYCDN H  | E41-7         |
| FRAME SYNC     | LNKH RX FRAME SYNC H | E107-9        |
| START BIT      | LNKE RX START BIT H  | E73-10        |

## RECEIVE STATE MACHINE OUTPUTS

| PROCESS STATE    | REFERENCE SIGNAL      | REFERENCE PIN |
|------------------|-----------------------|---------------|
| RX EHA STATE     | LNKH RX ENA STATE L   | E37-12        |
| NO CARRIER STATE | NONE - LOW ASSERTED   | E37-15        |
| PTR RESET        | LNKH RES RX PNTR L    | E38-6         |
| PTR INC          | LNKH INC RX PNTR L    | E41-15        |
|                  | LNKH PR INC RX PNTR L | E37-14        |
| CARRIER STATE    | LNKH RX ACTIVE H      | E99-10        |
| PACK OK STATE    | NONE - LOW ASSERTED   | E37-18        |
|                  | LNKH RX ODD BYTE L    | E32-19        |
| MISS STATE       | NONE - LOW ASSERTED   | E37-19        |
| SET MISS         | LNKH SET MISS L       | E32-12        |
| WRITE STATUS 0   | LNKH RX WR STAT0 L    | E32-14        |
|                  | LNKH RX REQUEST H     | E62-8         |
| WRITE STATUS 1   | LNKH RX WR STAT1 L    | E32-16        |
|                  | LNKH RX REQUEST H     | E62-8         |
| PAUSE            | NONE - LOW ASSERTED   | E32-15        |
| DATA STATE       | LNKH RX REQUEST H     | E62-8         |
|                  | PB RX ACK L           | PORT          |
|                  | BUS READ              | E100-6        |
|                  | LNKH RX MEM CYCDN H   | E41-7         |
| DONE             | LNKH ADV RX PNTR L    | E32-17        |

RECEIVE STATE MACHINE-LNKH  
STATE DIAGRAM-2

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|--------------------|
| CHK CHANGE NO. REV |

digital

DRN. D. BLANCHARD  
CHKD. J. SARGENT

DATE 12-NOV-82  
DATE 12-NOV-82

ENG. Neil Bloomberg  
DATE 12-NOV-82

DATE 12-NOV-82

TITLE: DEUNA LINK MODULE  
(LNK)

DSKD: (SARGENT)LNKSD2.DRW 05-NOV-82 16:08

NEXT HIGHER ASSEMBLY:

SIZE CODE K CS

NUMBER M7793-0-SD2

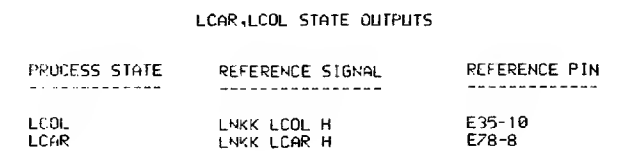
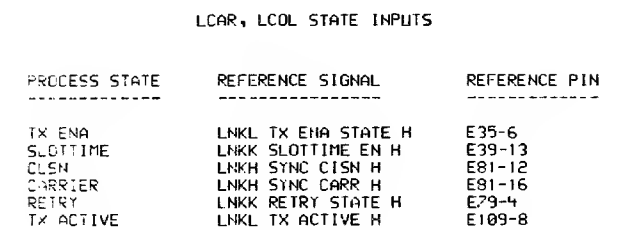
REV. A

FIRST USED ON OPTION/MODEL: DEUNA

D-UA-M7793-0-0

Tw

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|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| d | i | g | i | t | a |
|---|---|---|---|---|---|

|        |                     |
|--------|---------------------|
| DRN.   | D. BLANCHARD        |
| CHK'D. | <i>K. J. Langer</i> |

|  |                   |
|--|-------------------|
|  | DATE<br>17-NOV-82 |
|  | DATE<br>17-NOV-82 |

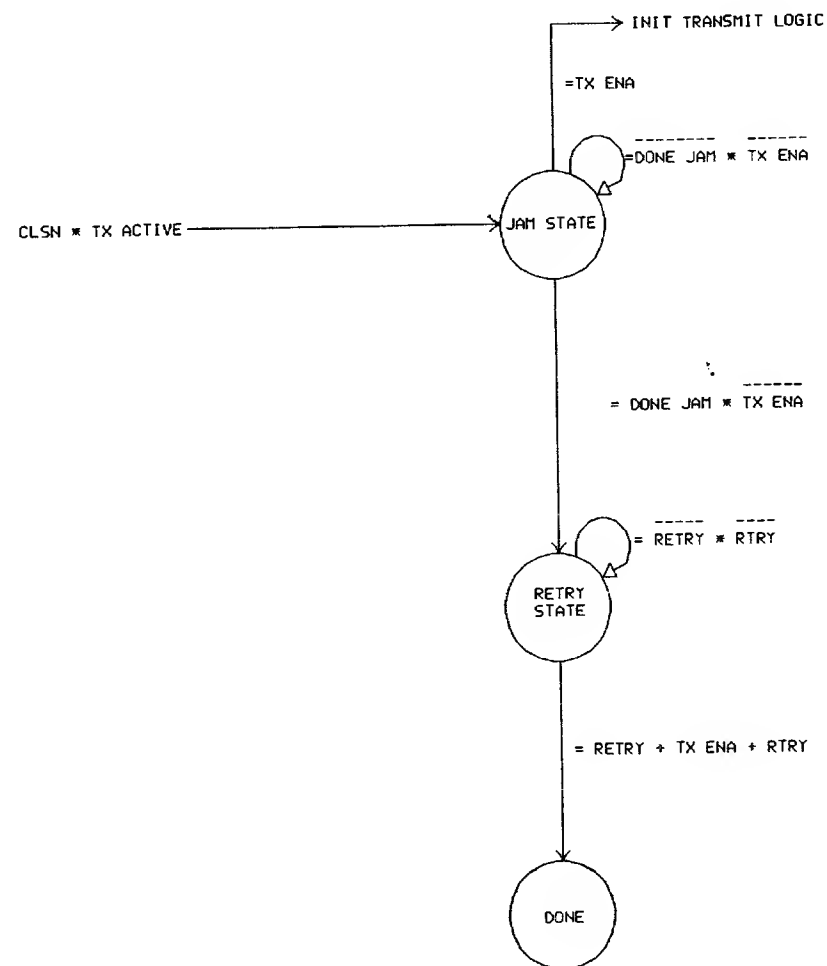
|                 |                |
|-----------------|----------------|
| ENG.            | Nell Bloomberg |
| BOARD LOCATION: |                |
| SHEET           | 1 0            |

DATE  
17-NOV-8

TITLE: DEUNA LINK MODULE  
(LNK)

|                             |                 |                       |
|-----------------------------|-----------------|-----------------------|
| DSKD:<SARGENT>LNKSD3.DRW    | 05-NOV-82 16:08 | NEXT HIGHER ASSEMBLY: |
| FIRST USED ON OPTION/MODEL: | DEUNA           | D-UA-M7793-0-0        |

|      |      |             |      |
|------|------|-------------|------|
| SIZE | CODE | NUMBER      | REV. |
| K    | CS   | M7793-0-SD3 | A    |



| PROCESS_STATE | REFERENCE_SIGNAL     | REFERENCE_PIN |
|---------------|----------------------|---------------|
| TX ENA        | LNKL TX ENA STATE H  | E35-6         |
| CISN          | LNKH SYNC CISN H     | E81-12        |
| DONE JAM      | LNKK COLLISION JAM H | E40-13        |
| RETRY         | LNKN RETRY H         | E61-15        |
| RTRY          | LNKK RTRY H          | E21-15        |

| PROCESS_STATE | REFERENCE_SIGNAL   | REFERENCE_PIN |
|---------------|--------------------|---------------|
| RETRY STATE   | LNKK RETRY STATE L | E50-18        |
| JAM STATE     | LNKK JAM STATE L   | E50-17        |
|               | LNKK RETRY INIT L  | E50-19        |

DEFINITIONS

RTRY: FAILURE TO TRANSMIT IN 16 ATTEMPTS DUE TO COLLISION

RETRY: PROPER NUMBER OF SLOTTIMES HAS ELAPSED. TIME TO RETRANSMIT

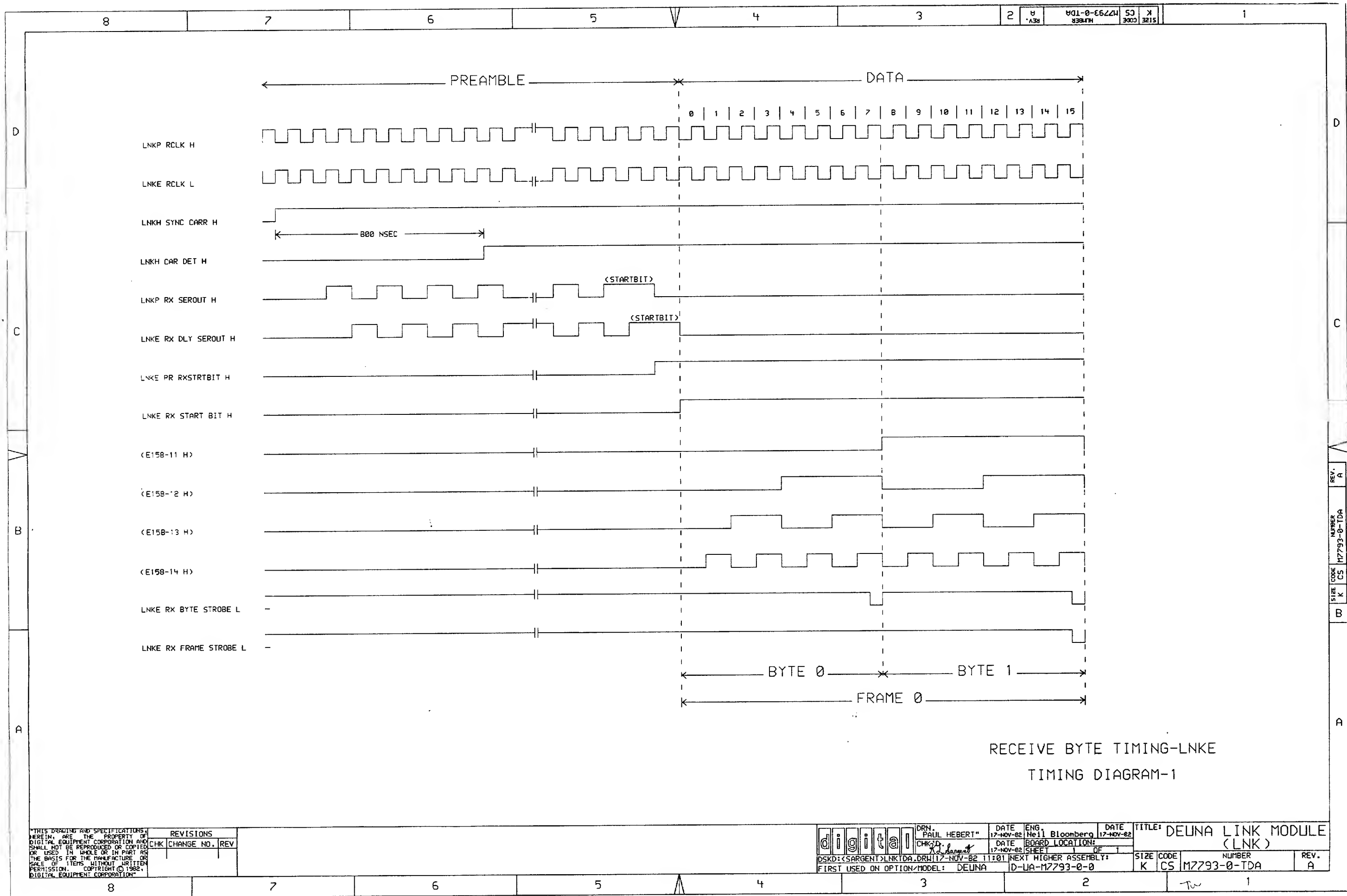
DONE JAM: TELLS JAM STATE 32 BITS HAVE ELAPSED STOP JAMMING

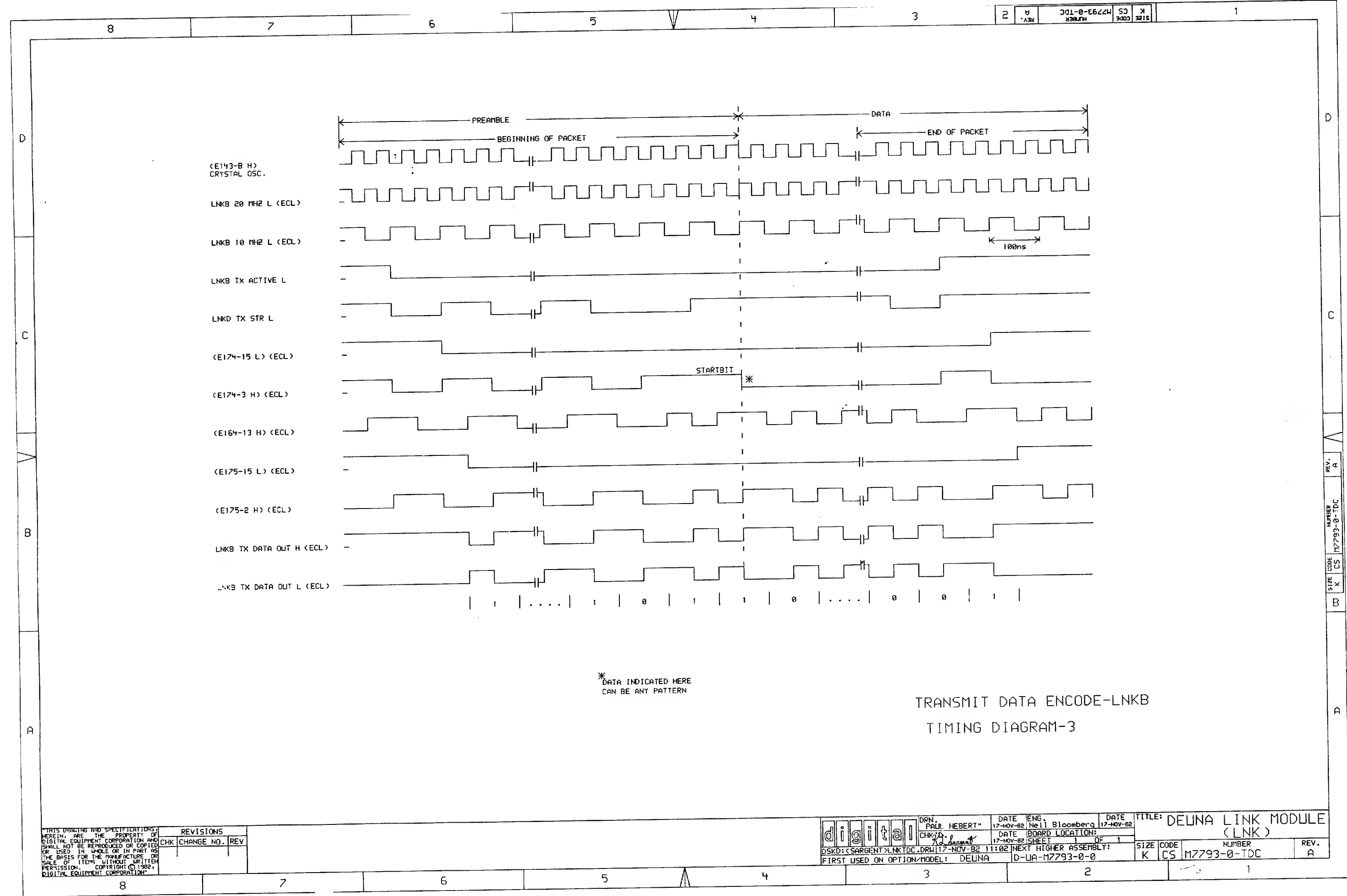
# COLLISION BACK OFF STATE-LNKK STATE DIAGRAM-4

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|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |

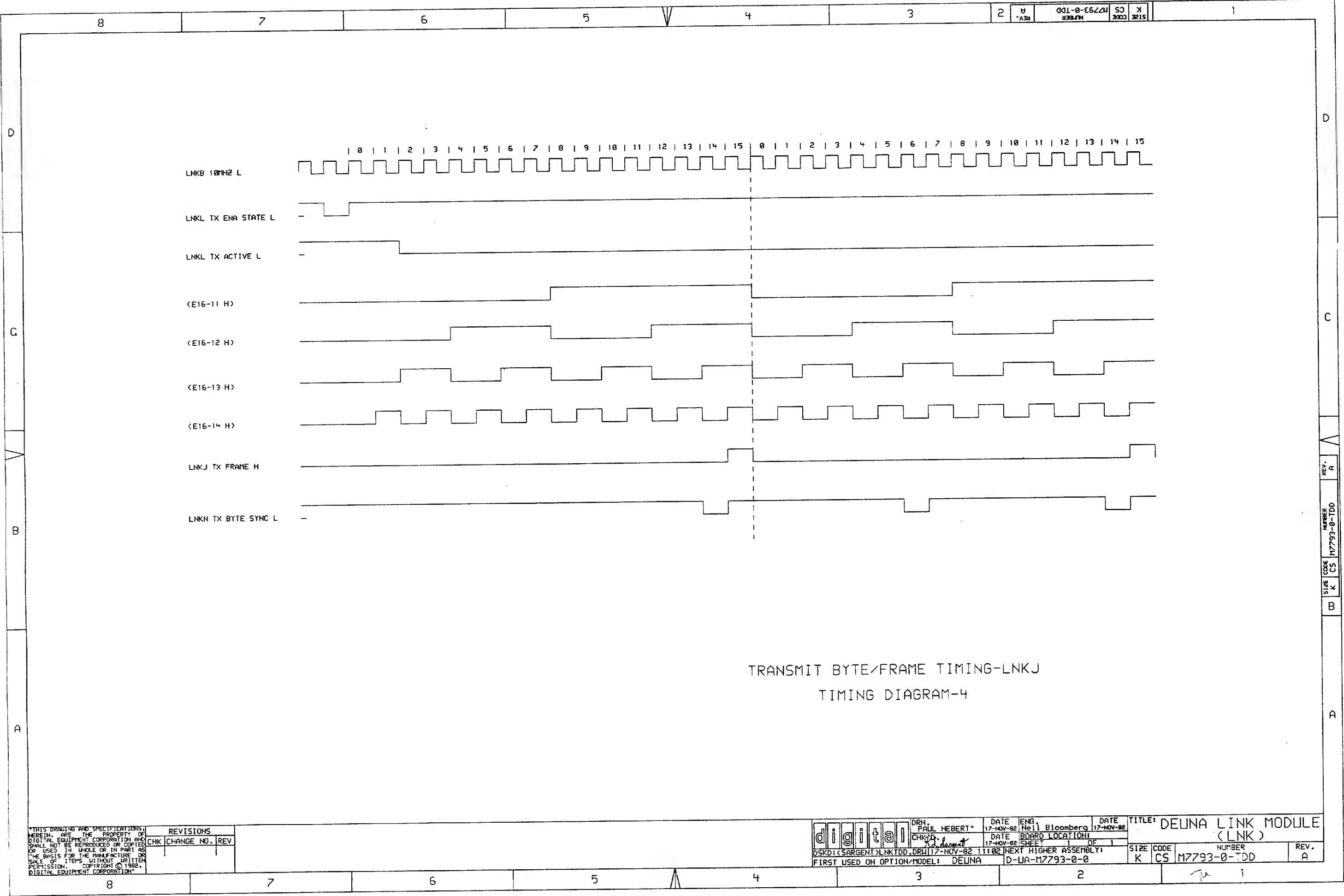
|  |                     |                   |                                 |                   |                                    |  |
|--|---------------------|-------------------|---------------------------------|-------------------|------------------------------------|--|
| digital  | DRN.<br>C. GIROUARD | DATE<br>17-NOV-82 | ENG.<br>Neil Bloomberg          | DATE<br>17-NOV-82 | TITLE: DELUNA LINK MODULE<br>(LNK) |  |
|  | CHKD.<br>A. Bennett | DATE<br>17-NOV-82 | BOARD LOCATION:<br>SHEET 1 OF 1 |                   |                                    |  |
| DSKD: <SARGENT>LNKSD4.DRW 105-NOV-82 16:08 NEXT HIGHER ASSEMBLY: |                     |                   |                                 |                   |                                    |  |
| FIRST USED ON OPTION/MODEL: DELUNA D-UA-M7793-0-0                |                     |                   |                                 |                   |                                    |  |
| SIZE   | CODE                | NUMBER            |                                 | REV.              |                                    |  |
| K  | CS                  | M7793-0-SD4       |                                 | A                 |                                    |  |





TRANSMIT DATA ENCODE-LNKB  
TIMING DIAGRAM-3

|   |  |                                 |  |         |  |  |                |                                      |                |                                |                    |        |
|---|--|---------------------------------|--|---------|--|--|----------------|--------------------------------------|----------------|--------------------------------|--------------------|--------|
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|   |  |                                 |  |         |  | CHK'D. [Signature]                       | DATE 17-NOV-82 | BOARD LOCATION: SHEET 1 OF 1         |                |                                |                    |        |
|   |  |                                 |  |         |  | DSKD:CSARGENTLNK.TDC.DRW/17-NOV-82 11:02 |                | NEXT HIGHER ASSEMBLY: D-UA-M7793-0-0 |                | SIZE CODE K CS                 | NUMBER M7793-0-TDC | REV. A |
|   |  |                                 |  |         |  | FIRST USED ON OPTION/MODEL: DEUNA        |                |                                      |                |                                |                    |        |



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|           |            |     |

|                                   |  |                |                        |                |                                |
|-----------------------------------|--|----------------|------------------------|----------------|--------------------------------|
| digital                           | DRN. PAUL HEBERT   | DATE 17-NOV-82 | ENG. Neil Bloomberg    | DATE 17-NOV-82 | TITLE: DEUNA LINK MODULE (LNK) |
|                                   | CHK'D. <i>Robert</i>   | DATE 17-NOV-82 | BOARD LOCATION: 1 OF 1 |                |                                |
|                                   | DSKD: <SARGENT>LNKTDD.DRW117-NOV-82 11:02 NEXT HIGHER ASSEMBLY: D-UA-M7793-0-0 |                |                        |                |                                |
| FIRST USED ON OPTION/MODEL: DEUNA |  |                |                        |                |                                |
| SIZE                              | CODE   | NUMBER         |                        | REV.           |                                |
| K                                 | CS   | M7793-0-TDD    |                        | A              |                                |

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NUMBER

M7793-0-TDE

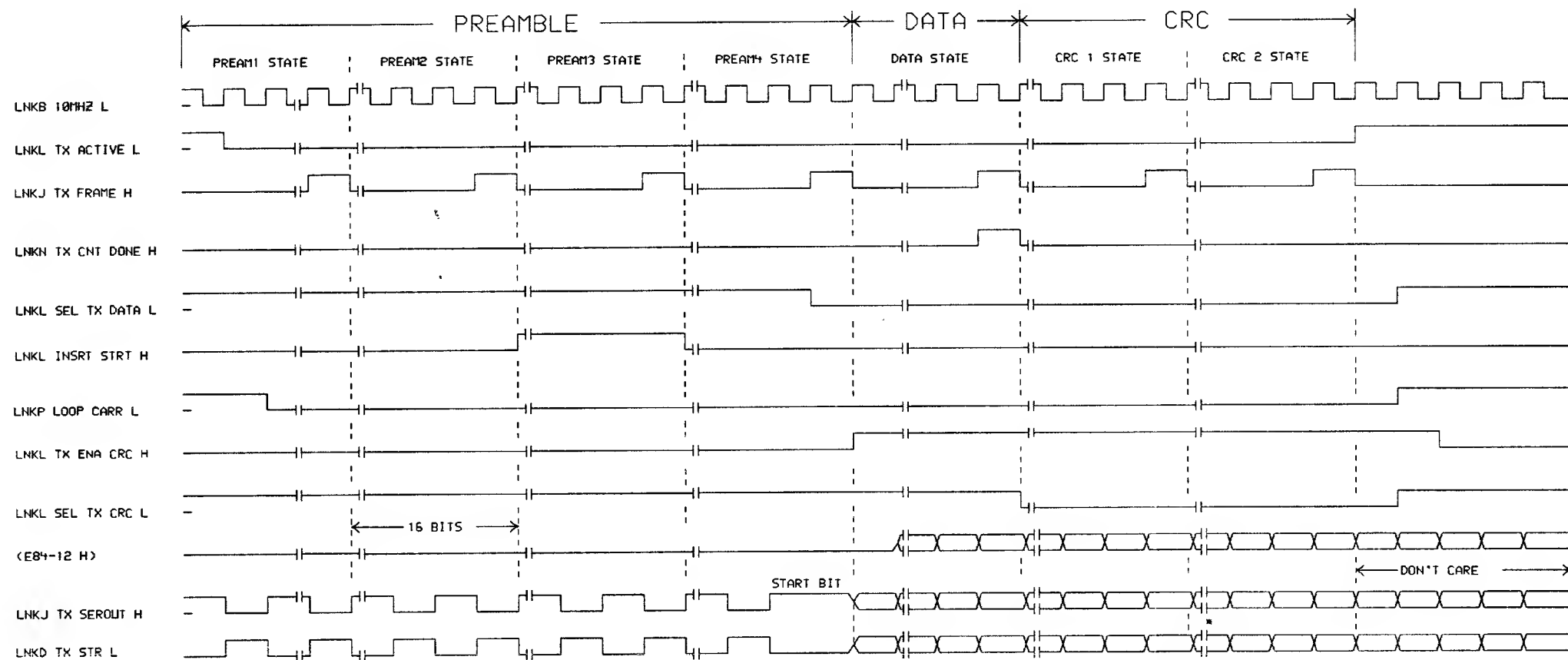
SIZE

CODE

K

CS

1



\* DATA INDICATED HERE  
CAN BE ANY PATTERN

TRANSMIT BIT STREAM-LNKD  
TIMING DIAGRAM-5

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## REVISIONS

CHK CHANGE NO. REV

digital

DRN.

CARLSON

DATE

17-NOV-82

ENG.

Neil Bloomberg

DATE

17-NOV-82

TITLE

DEUNA LINK MODULE  
(LNK)CHKD. *R. Bennett*

DATE

17-NOV-82

SHEET

OF 1

DSKD: &lt;SARGENT&gt;LNKTDE.DRW 17-NOV-82 11:02

NEXT HIGHER ASSEMBLY:

D-UA-M7793-0-0

FIRST USED ON OPTION/MODEL: DEUNA

SIZE

CODE

K

CS

NUMBER

M7793-0-TDE

REV.

A

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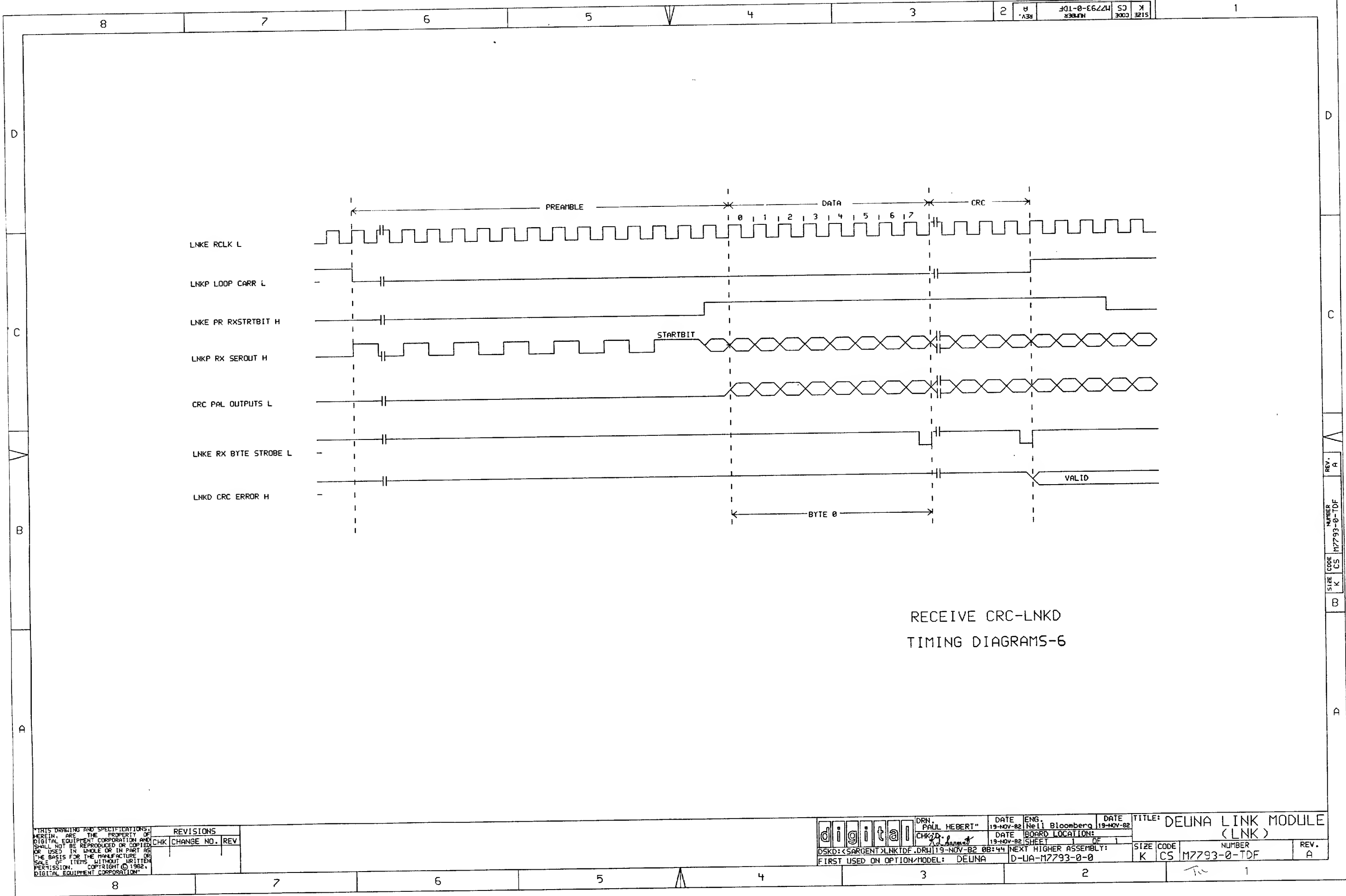
4

3

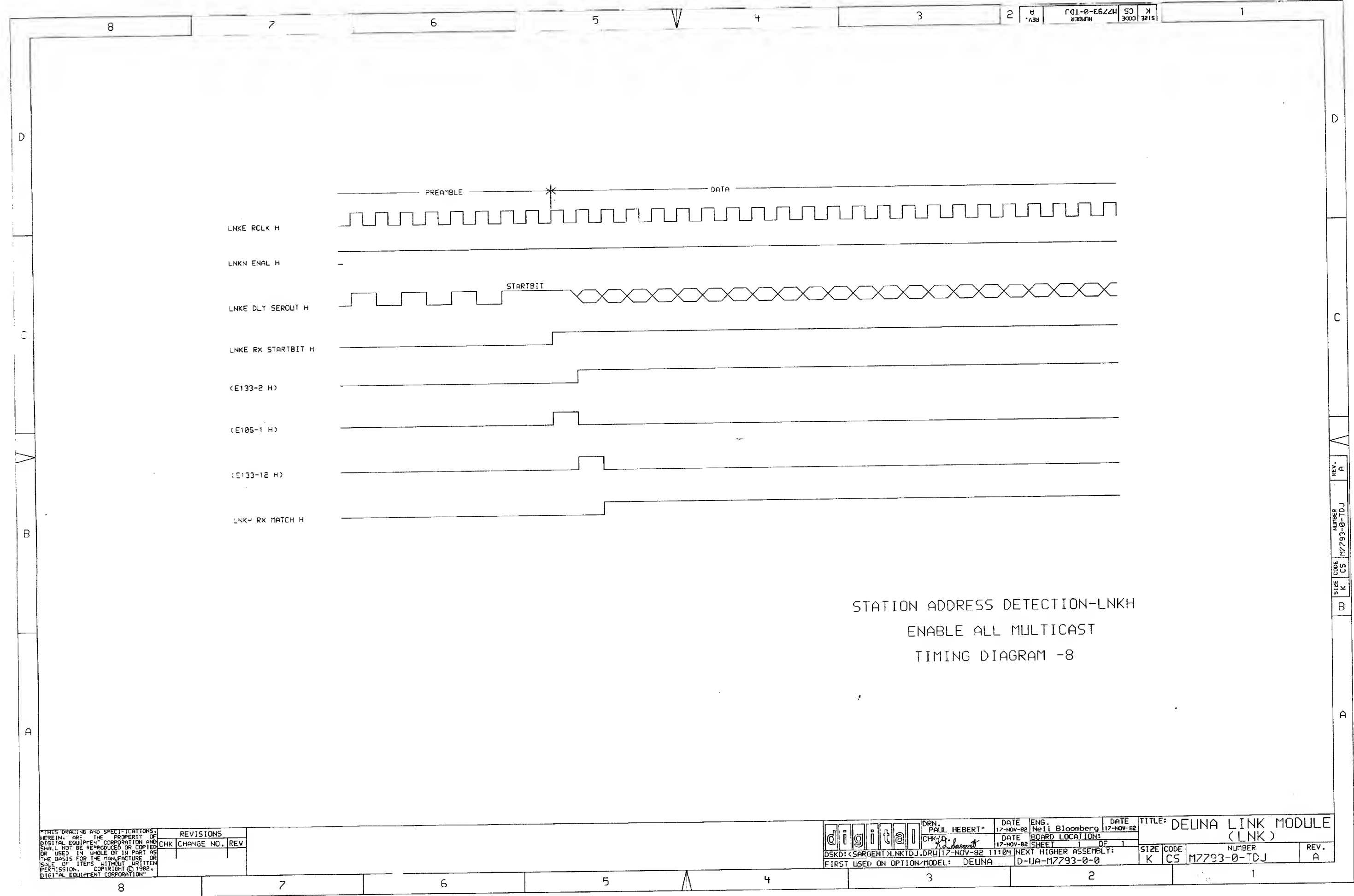
2

1









STATION ADDRESS DETECTION-LNKH  
ENABLE ALL MULTICAST  
TIMING DIAGRAM -8

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|           |            |     |

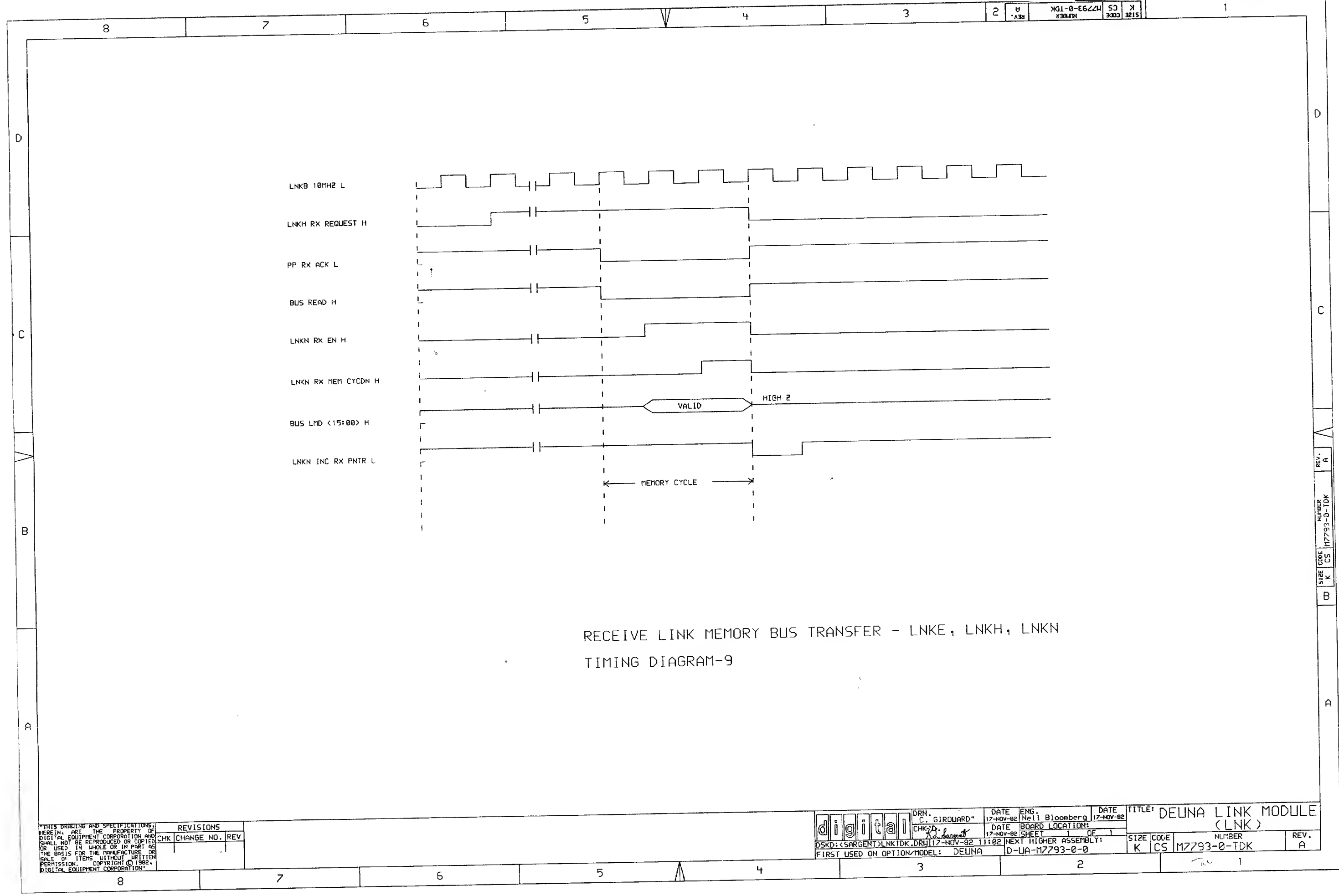
digital

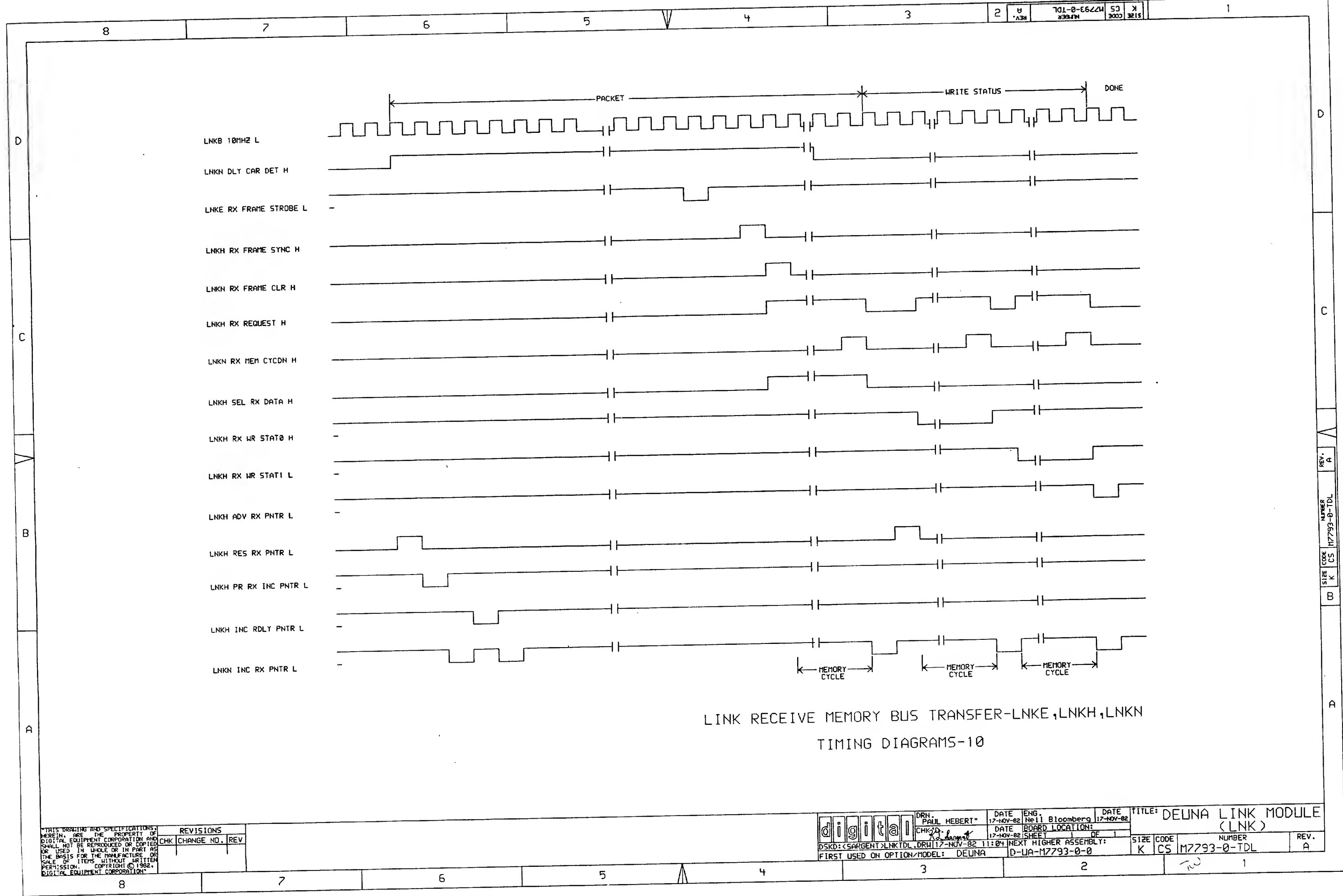
DRN. PAUL HEBERT  
CHK'D. *[Signature]*

|           |                 |           |
|-----------|-----------------|-----------|
| DATE      | ENG.            | DATE      |
| 17-NOV-82 | Neil Bloomberg  | 17-NOV-82 |
| DATE      | BOARD LOCATION: | DATE      |
| 17-NOV-82 | SHEET 1 OF 1    | 17-NOV-82 |

TITLE: DEUNA LINK MODULE  
(LNK)  
SIZE CODE NUMBER REV.  
K CS M7793-0-TDJ A

DSKD:XSARGENT\LNKTDJ.DRW 17-NOV-82 11:04 NEXT HIGHER ASSEMBLY:  
FIRST USED ON OPTION/MODEL: DEUNA D-UA-M7793-0-0

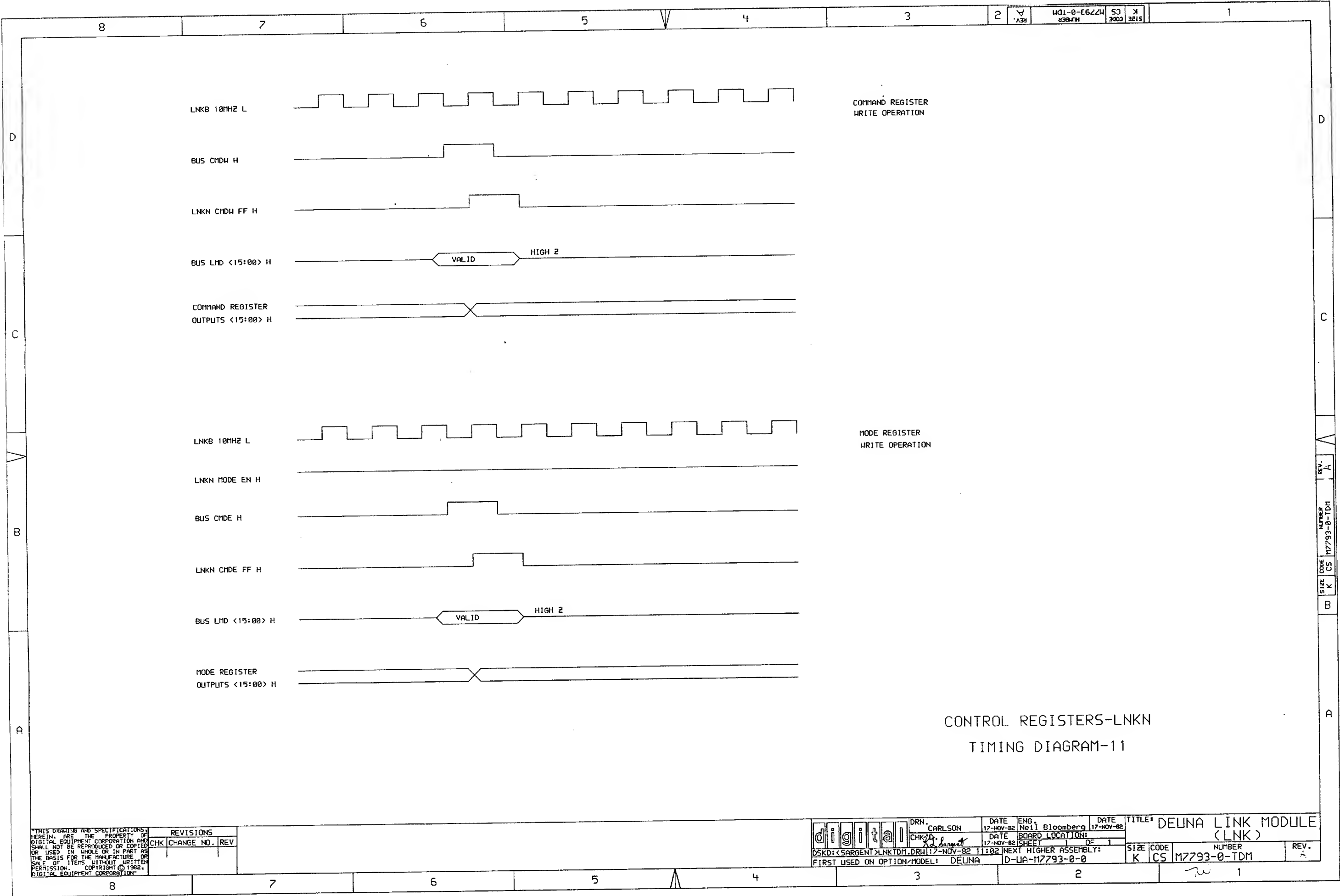




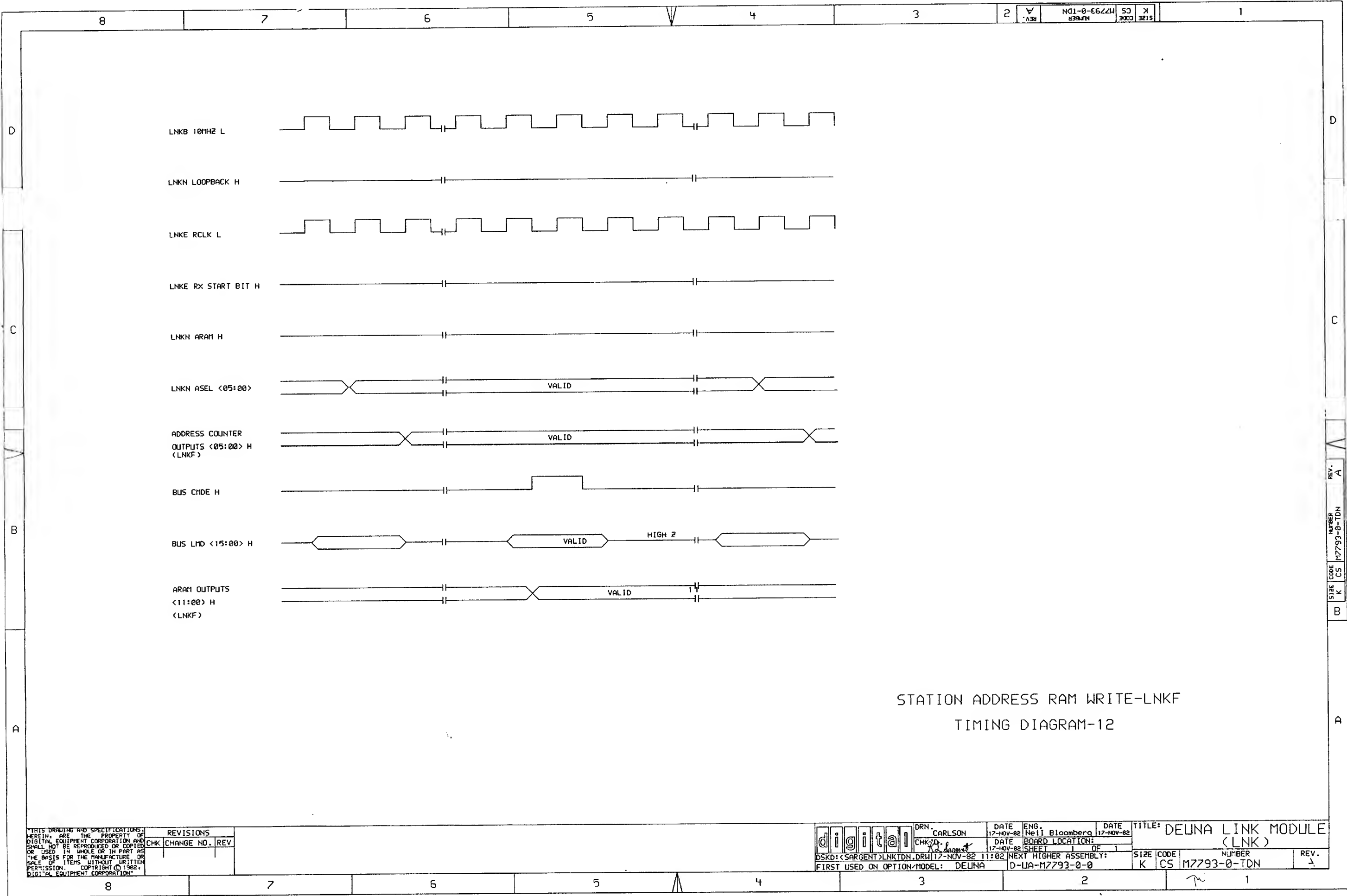
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|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

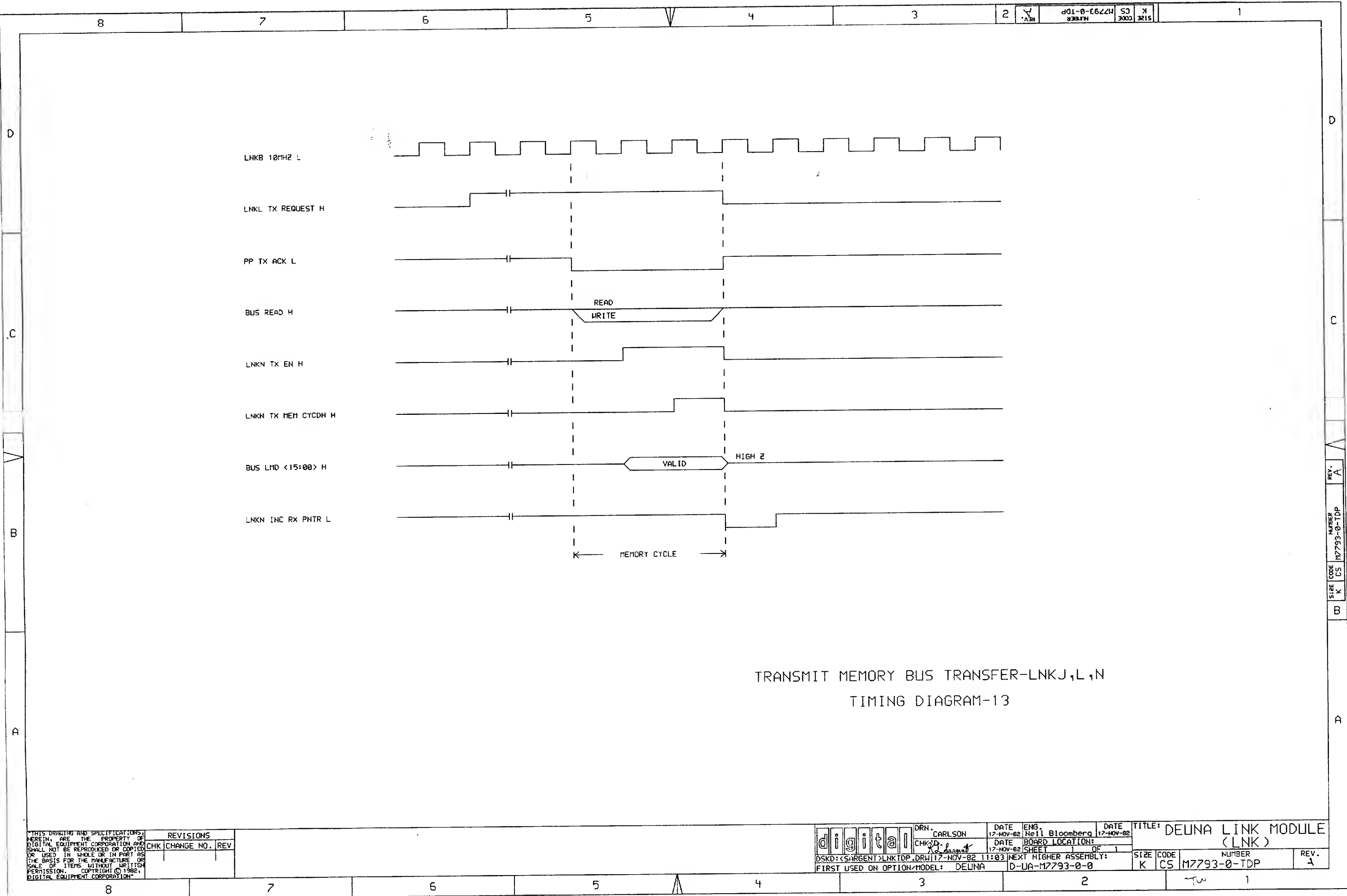
|  |                           |                |                        |                |                                |
|--|---------------------------|----------------|------------------------|----------------|--------------------------------|
| digital  | DRN. PAUL HEBERT          | DATE 17-NOV-82 | ENG. Neil Bloomberg    | DATE 17-NOV-82 | TITLE: DEUNA LINK MODULE (LNK) |
|  | CHK'D. <i>[Signature]</i> | DATE 17-NOV-82 | BOARD LOCATION: 1 OF 1 | DATE 17-NOV-82 |                                |
| DSKD: <SARGENT>LNKTDL.DRW 17-NOV-82 11:04 NEXT HIGHER ASSEMBLY: D-UA-M7793-0-0 |                           |                |                        |                |                                |
| FIRST USED ON OPTION/MODEL: DEUNA  |                           |                |                        |                |                                |
| SIZE   | CODE                      | NUMBER         |                        | REV.           |                                |
| K  | CS                        | M7793-0-TDL    |                        | A              |                                |



|   |                                   |            |         |                 |                                      |                     |                              |                                |                    |        |
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|   | CHK                               | CHANGE NO. |         | REV.            | CHK: A. Sargent                      | DATE 17-NOV-82      | BOARD LOCATION: SHEET 1 OF 1 | SIZE CODE K CS                 | NUMBER M7793-0-TDM | REV. 1 |
|   | DSKD: <SARGENT>LNKTDM.DRW         |            |         | 17-NOV-82 11:02 | NEXT HIGHER ASSEMBLY: D-UA-M7793-0-0 |                     |                              |                                |                    |        |
|   | FIRST USED ON OPTION/MODEL: DEUNA |            |         |                 |                                      |                     |                              |                                |                    |        |



STATION ADDRESS RAM WRITE-LNKF  
TIMING DIAGRAM-12



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|-----------|----------------|
| CHK       | CHANGE NO. REV |

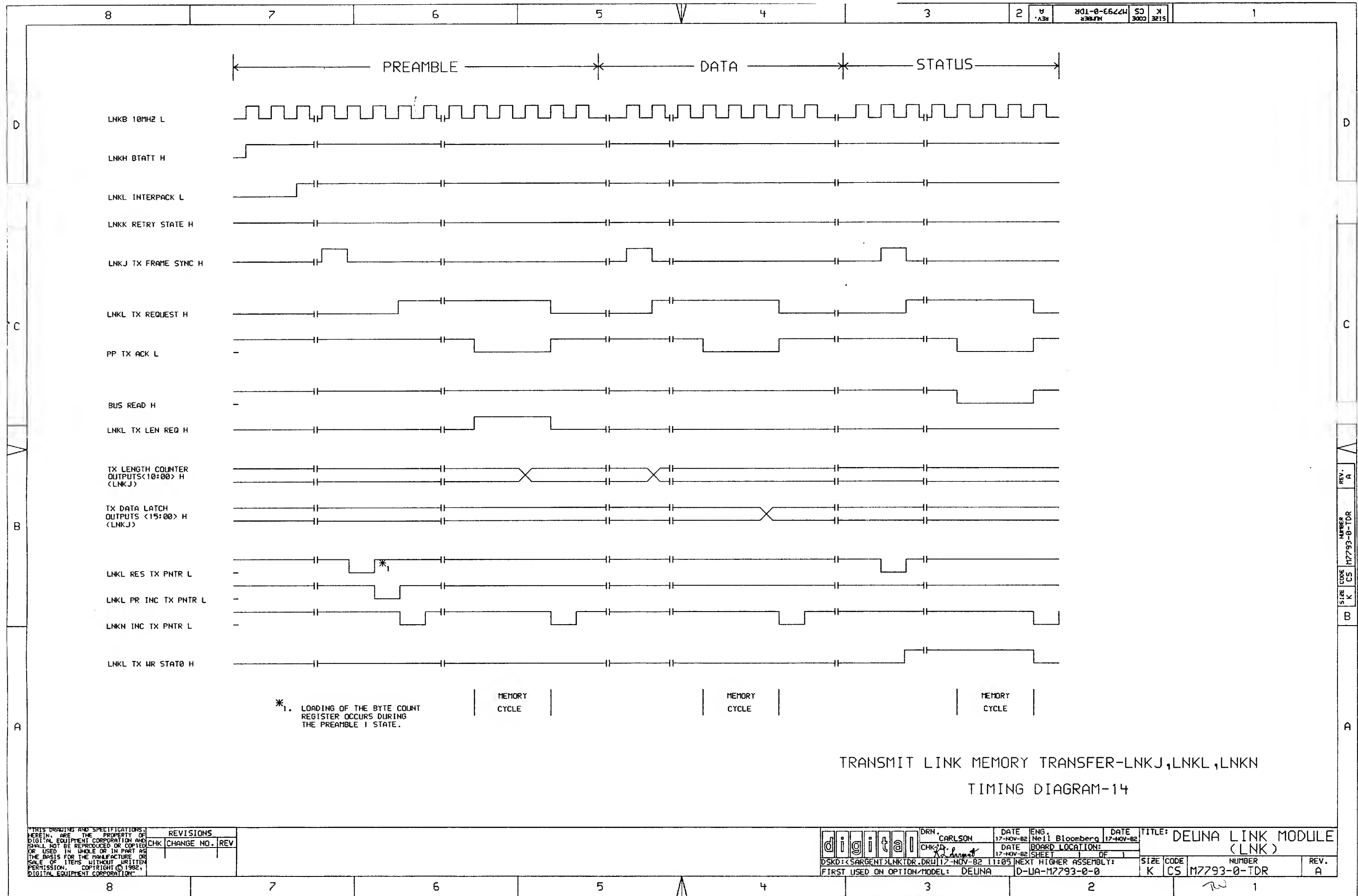
digital

|        |         |      |           |                 |                |      |           |
|--------|---------|------|-----------|-----------------|----------------|------|-----------|
| DRN.   | CARLSON | DATE | 17-NOV-82 | ENG.            | Neil Bloomberg | DATE | 17-NOV-82 |
| CHK'D. |         | DATE | 17-NOV-82 | BOARD LOCATION: |                |      |           |

OSKD: <SARGENT>LNKTDP.DRW 17-NOV-82 11:03 NEXT HIGHER ASSEMBLY:  
FIRST USED ON OPTION/MODEL: DEUNA D-UA-M7793-0-0

|                                |      |             |      |
|--------------------------------|------|-------------|------|
| TITLE: DEUNA LINK MODULE (LNK) |      |             |      |
| SIZE                           | CODE | NUMBER      | REV. |
| K                              | CS   | M7793-0-TDP | 1    |





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| CHK | CHANGE NO. | REV |
|-----|------------|-----|
|     |            |     |

digital

DRN. CARLSON  
CHK'D. J. J. J.

DATE 17-NOV-82  
ENG. Neil Bloomberg

DATE 17-NOV-82  
BOARD LOCATION:

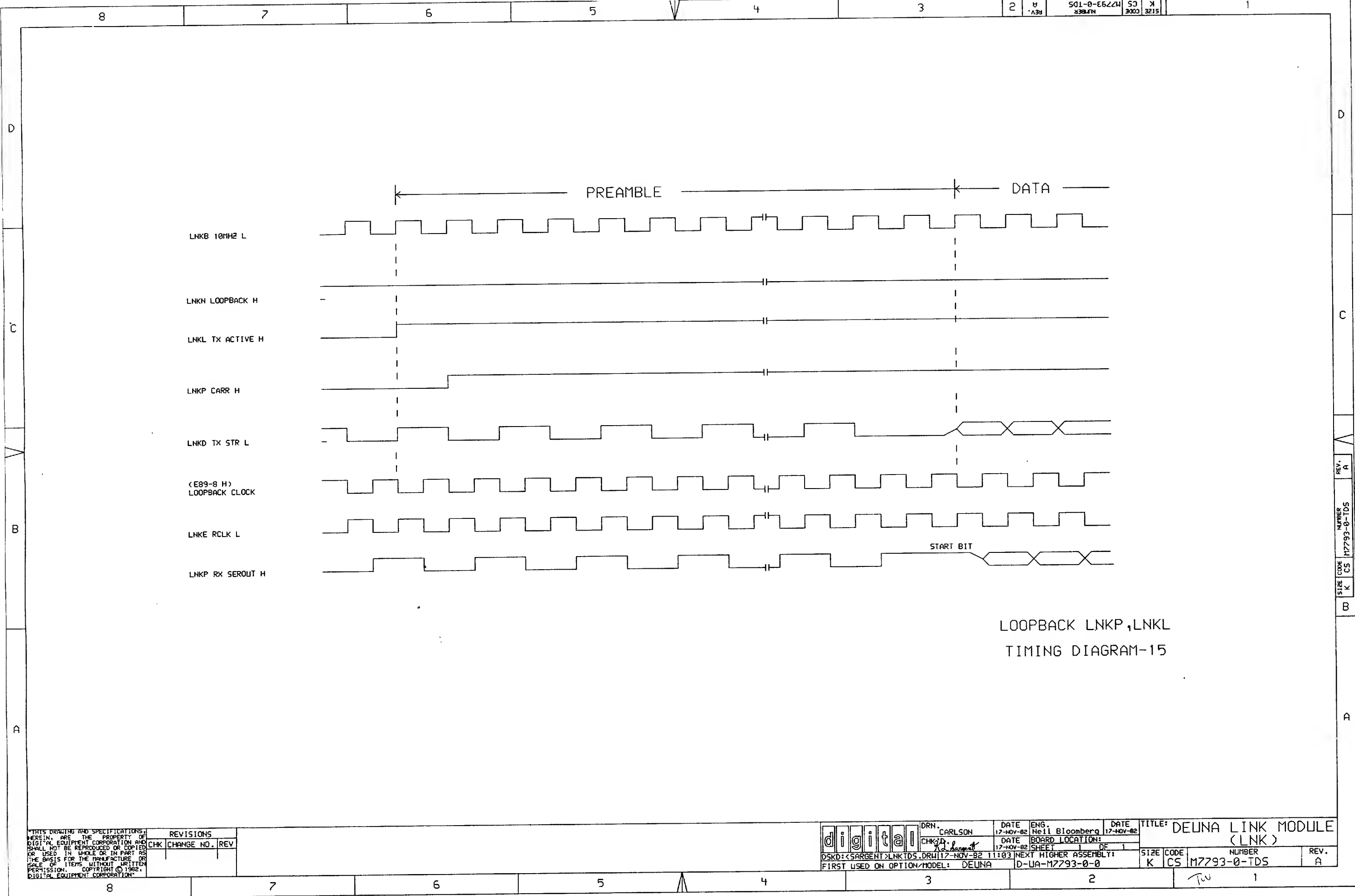
DESKD: <SARGENT>LNKTDR.DRW

17-NOV-82 11:05

NEXT HIGHER ASSEMBLY:

DEUNA

|      |      |             |      |
|------|------|-------------|------|
| SIZE | CODE | NUMBER      | REV. |
| K    | CS   | M7793-0-TDR | A    |

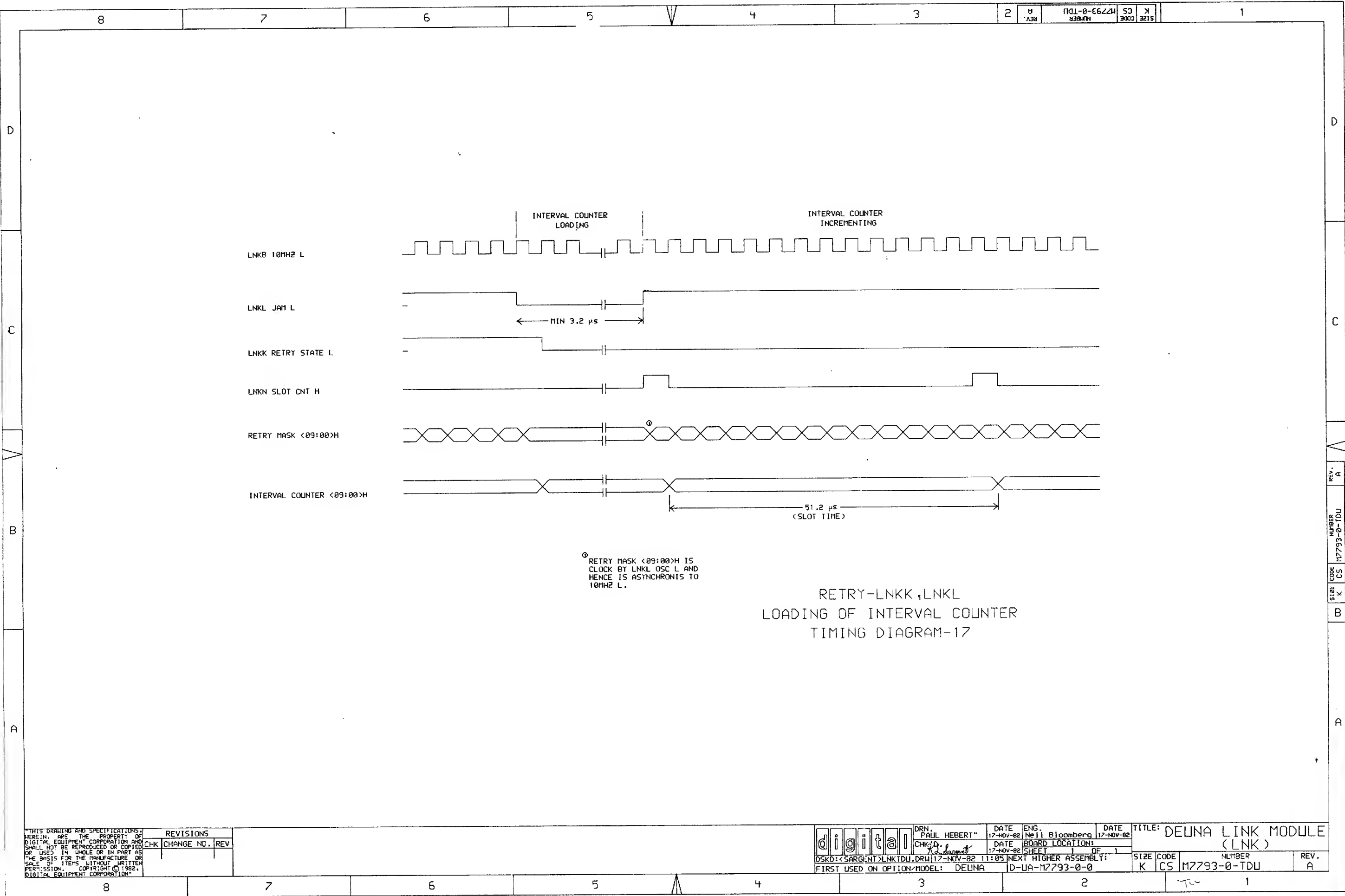


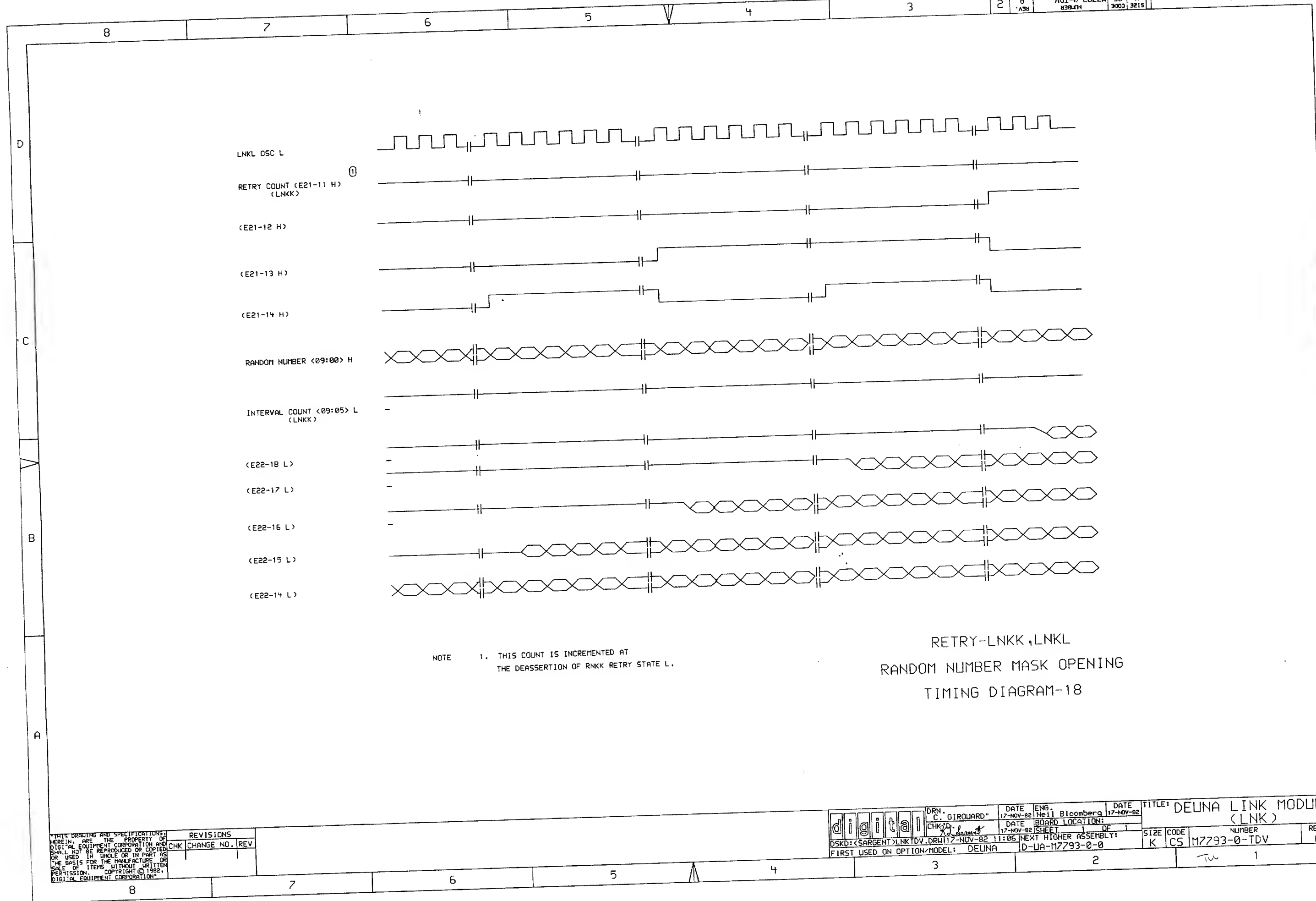
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|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

TITLE: DELUNA LINK MODULE  
(LNK)







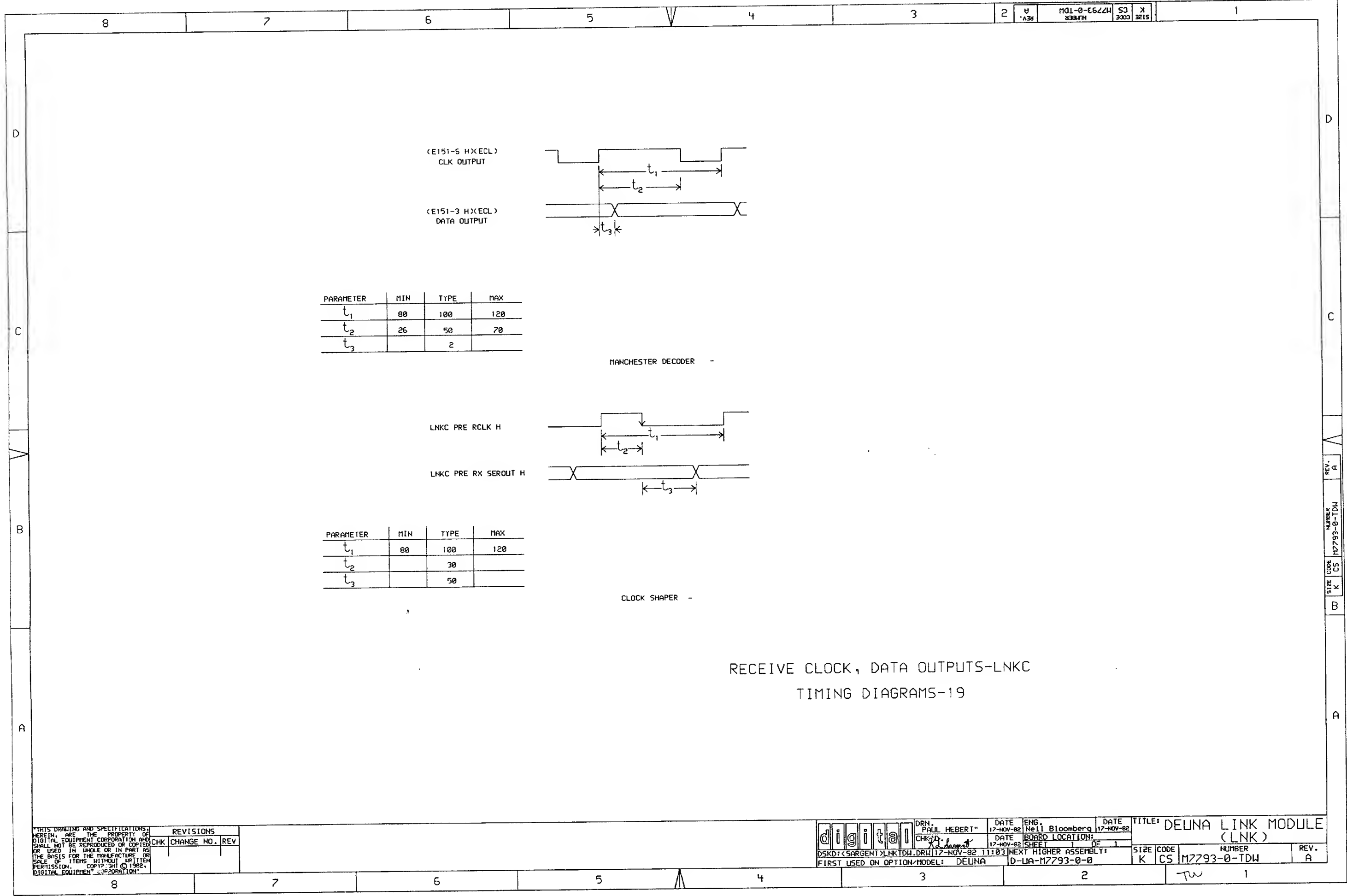
NOTE 1. THIS COUNT IS INCREMENTED AT THE DEASSERTION OF RNKK RETRY STATE L.

RETRY-LNKK, LNKL  
RANDOM NUMBER MASK OPENING  
TIMING DIAGRAM-18

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|           |            |     |

|  |                  |                                      |                        |                |                                 |                    |        |
|--|------------------|--------------------------------------|------------------------|----------------|---------------------------------|--------------------|--------|
| digital                                    | DRN. C. GIROUARD | DATE 17-NOV-82                       | ENG. Neil Bloomberg    | DATE 17-NOV-82 | TITLE: DELUNA LINK MODULE (LNK) |                    |        |
|  | CHKD. J. Sargent | DATE 17-NOV-82                       | BOARD LOCATION: 1 DE 1 | SHEET 1        |                                 |                    |        |
| OSKD: SARGENT LNKT DV. DRW 17-NOV-82 11:06 |                  | NEXT HIGHER ASSEMBLY: D-UA-M7793-0-0 |                        | SIZE K         | CODE CS                         | NUMBER M7793-0-TDV | REV. A |
| FIRST USED ON OPTION/MODEL: DELUNA         |                  |                                      |                        |                |                                 |                    |        |





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REV. 1  
NUMBER 17793-0-TTB  
CODE CS  
SIZE K

1

PART NUMBER: 23-030K5-00

LOCATION: E56, E70

DEVICE TYPE: PAL16R8  
PIN NUMBER = SYMBOL TABLE:

|            |           |          |
|------------|-----------|----------|
| 1= CLK     | 8= SEL1 H | 15= A4 L |
| 2= CLR L   | 9= SEL0 H | 16= A3 L |
| 3= IN H    | 10= GND   | 17= A2 L |
| 4= A n L   | 11= EN    | 18= A1 L |
| 5= Shift L | 12= A7 L  | 19= A0 L |
| 6= A31 L   | 13= A6 L  | 20= VCC  |
| 7= GND H   | 14= A5 L  |          |

NOTES: CRCHI.PAL - (LNKD)

THIS PROGRAM IS USED TO PERFORM A 32-BIT CRC  
FUNCTION USING THE AUTODIN II POLYNOMIAL.  
The following table is used to determine the CRC equation used:

| SEL1 | SEL0 | Equation   |
|------|------|--|
| 0    | 0    | Polynomials A31 to A24 =X**32 + X**26                    |
| 0    | 1    | Polynomials A23 to A16 =X**23 + X**22 + X**16            |
| 1    | 0    | Polynomials A15 to A08 =X**12 + X**11 + X**10 + X**8     |
| 1    | 1    | Polynomials A07 to A00 =X**7 + X**5 + X**4 + X**2 +X + 1 |

PAL PINS: 00000000000000000000000000000000  
2345678910111213141516171819OUTPIN 19 X L X L L X X H X X X X X X X X /IN H \* A31 L \* Shift L \* SEL0 H  
X H X L L X X H X X X X X X X X /IN H \* A31 L \* Shift L \* SEL0 H  
X L H L L X X L X X X X X X X X /A n L \* /IN H \* A31 L \* Shift L \* /SEL0 H  
X H L L L X X L X X X X X X X X /A n L \* /IN H \* A31 L \* Shift L \* /SEL0 H  
X H L H X X L X X X X X X X X /A n L \* /IN H \* A31 L \* Shift L \* /SEL0 H  
X L L L H X X L X X X X X X X X /A n L \* /IN H \* A31 L \* Shift L \* /SEL0 H  
X L L H X X X X X X X X X X X X X /A n L \* /Shift L  
L X X X X X X X X X X X X X X X X X CLR LOUTPIN 18 X L X L L X X H X X X X X X X X /A0 L \* /IN H \* A31 L \* Shift L \* SEL0 H  
X H X L L X X H X X X X X X X X /A0 L \* /IN H \* A31 L \* Shift L \* SEL0 H  
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X X X L X X X L X X X X X X X X /A0 L \* Shift L \* /SEL0 H  
X X X H X X X X X X X X X X X X X /A0 L \* /Shift L  
L X X X X X X X X X X X X X X X X X CLR LOUTPIN 17 X L X L L X X X X X X X X X X X X X /A1 L \* /IN H \* A31 L \* Shift L  
X H X L L X X X X X X X X X X X X X /A1 L \* /IN H \* A31 L \* Shift L  
X H X L H X X X X X X X X X X X X X /A1 L \* /IN H \* A31 L \* Shift L  
X L X L H X X X X X X X X X X X X X /A1 L \* /IN H \* A31 L \* Shift L  
X X X H X X X X X X X X X X X X X /A1 L \* /Shift L  
L X X X X X X X X X X X X X X X X X CLR LOUTPIN 16 X X X L X X X H X X X X X X X X X /A2 L \* Shift L \* SEL0 H  
X L X L L X X L X X X X X X X X X /A2 L \* /IN H \* A31 L \* Shift L \* /SEL0 H  
X H X L L X X L X X X X X X X X X /A2 L \* /IN H \* A31 L \* Shift L \* /SEL0 H  
X H X L H X X L X X X X X X X X X /A2 L \* /IN H \* A31 L \* Shift L \* /SEL0 H  
X L X L H X X L X X X X X X X X X /A2 L \* /IN H \* A31 L \* Shift L \* /SEL0 H  
X X X H X X X X X X X X X X X X X /A2 L \* /Shift L  
L X X X X X X X X X X X X X X X X X CLR LOUTPIN 15 X L X L L X X X X X X X X X X X X X /A3 L \* /IN H \* A31 L \* Shift L  
X H X L L X X X X X X X X X X X X X /A3 L \* /IN H \* A31 L \* Shift L  
X H X L H X X X X X X X X X X X X X /A3 L \* /IN H \* A31 L \* Shift L  
X L X L H X X X X X X X X X X X X X /A3 L \* /IN H \* A31 L \* Shift L  
X X X H X X X X X X X X X X X X X /A3 L \* /Shift L  
L X X X X X X X X X X X X X X X X X CLR LOUTPIN 14 X L X L L X X H X X X X X X X X X /A4 L \* /IN H \* A31 L \* Shift L \* SEL0 H  
X H X L L X X H X X X X X X X X X /A4 L \* /IN H \* A31 L \* Shift L \* SEL0 H  
X H X L H X X H X X X X X X X X X /A4 L \* /IN H \* A31 L \* Shift L \* SEL0 H  
X L X L H X X H X X X X X X X X X /A4 L \* /IN H \* A31 L \* Shift L \* SEL0 H  
X X X H X X X X X X X X X X X X X /A4 L \* /Shift L \* /SEL0 H  
X X X H X X X X X X X X X X X X X /A4 L \* /Shift L  
L X X X X X X X X X X X X X X X X X CLR LOUTPIN 13 X X X L X X X X X X X X X X X X X /A5 L \* Shift L  
X X X H X X X X X X X X X X X X X /A5 L \* /Shift L  
L X X X X X X X X X X X X X X X X X CLR LOUTPIN 12 X L X L L X X H X X X X X X X X X /A6 L \* /IN H \* A31 L \* Shift L \* SEL0 H  
X H X L L X X H X X X X X X X X X /A6 L \* /IN H \* A31 L \* Shift L \* SEL0 H  
X H X L H X X H X X X X X X X X X /A6 L \* /IN H \* A31 L \* Shift L \* SEL0 H  
X L X L H X X H X X X X X X X X X /A6 L \* /IN H \* A31 L \* Shift L \* SEL0 H  
X X X H X X X X X X X X X X X X X /A6 L \* Shift L \* /SEL0 H  
X X X H X X X X X X X X X X X X X /A6 L \* /Shift L  
L X X X X X X X X X X X X X X X X X CLR LTHIS DRAWING AND SPECIFICATIONS  
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CHK CHANGE NO. REV

|                                   |                      |                                       |  |
|-----------------------------------|----------------------|---------------------------------------|--|
| digital                           | DATE ENG.            | DATE                                  | TITLE: DEUNA LINK MODULE<br>PAL LISTINGS |
|                                   | 08-NOV-82            | 08-NOV-82                             |  |
| CHK'D.                            | DATE BOARD LOCATION: | DATE SHEET                            | OF                                       |
| Ken Sargent                       | 08-NOV-82            | 1                                     | 1  |
| DSK:LNKTTB.T2PL4,271              |                      | 08-NOV-82 16:14 NEXT HIGHER ASSEMBLY: |  |
| FIRST USED ON OPTION/MODEL: DEUNA |                      | D-UA-M7793-0-0                        |  |
| SIZE                              | CODE                 | NUMBER                                | REV.                                     |
| K                                 | CS                   | M7793-0-TTB                           | A  |

8

7

6

5

4

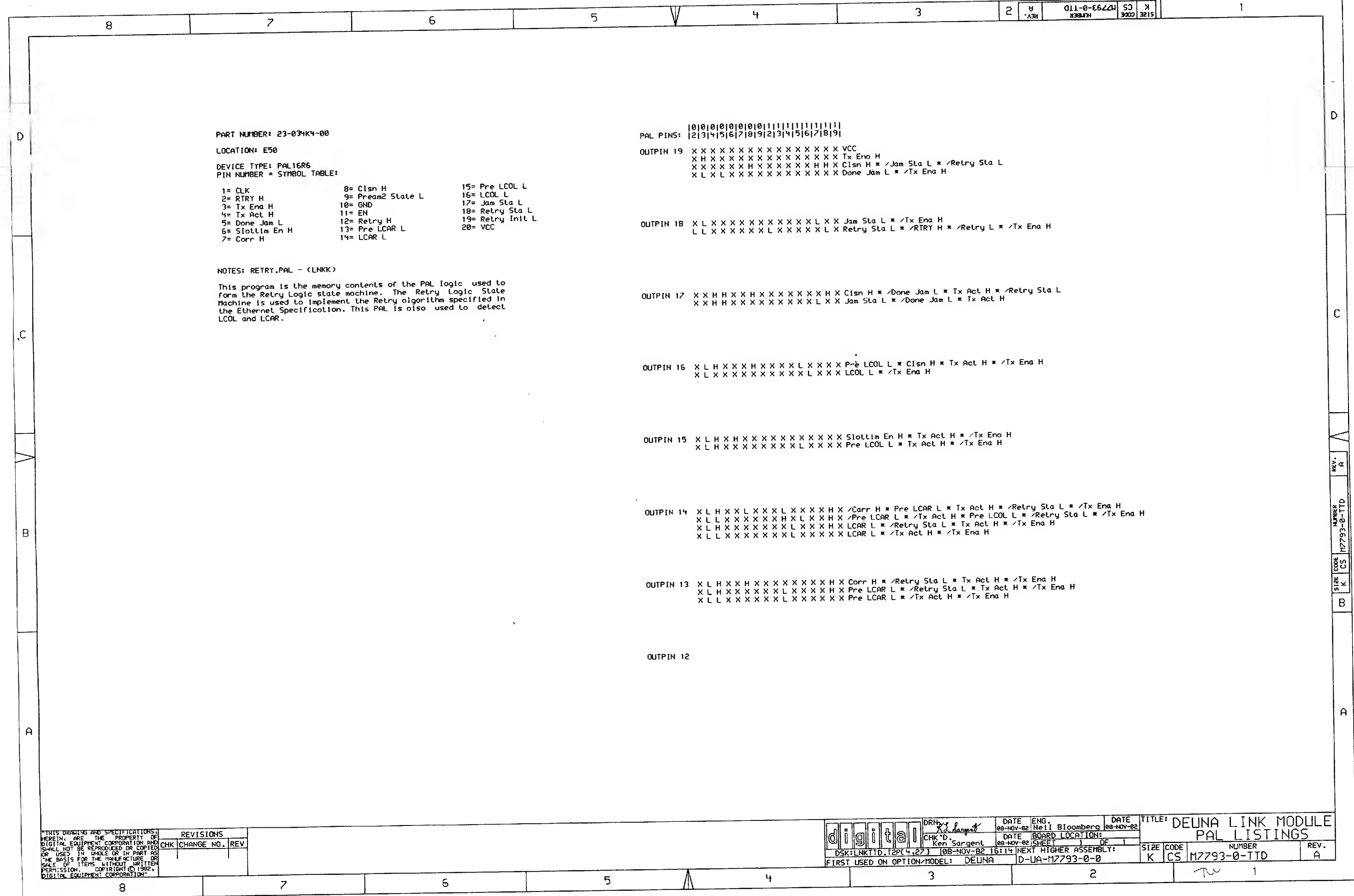
3

2

1



|   |  |
|---|--|
| 三 |  |
|---|--|



PART NUMBER: 23-034K4-00

LOCATION: E50

DEVICE TYPE: PAL16R6  
PIN NUMBER = SYMBOL TABLE:

- |                 |                   |                  |
|-----------------|-------------------|------------------|
| 1= CLK          | 8= Clsn H         | 15= Pre LCOL L   |
| 2= RTRY H       | 9= Pream2 State L | 16= LCOL L       |
| 3= Tx Ena H     | 10= GND           | 17= Jam Sta L    |
| 4= Tx Act H     | 11= EN            | 18= Retry Sta L  |
| 5= Done Jam L   | 12= Retry H       | 19= Retry Init L |
| 6= Slottim En H | 13= Pre LCAR L    | 20= VCC          |
| 7= Corr H       | 14= LCAR L        |                  |

NOTES: RETRY.PAL - (LNKK)

This program is the memory contents of the PAL logic used to form the Retry Logic state machine. The Retry Logic State Machine is used to implement the Retry algorithm specified in the Ethernet Specification. This PAL is also used to detect LCOL and LCAR.

PAL PINS: 0000000000011111111111111111111111  
2345678923456789

OUTPIN 19 XXXXXXXXXXXXXXXXXXXX VCC  
XXXXXXXXXXXXXXXXXXXX Tx Ena H  
XXXXXXXXXXXXXXXXXXXX Clsn H \* /Jam Sta L \* /Retry Sta L  
X L X L X X X X X X X X Done Jam L \* /Tx Ena H

OUTPIN 18 X L X X X X X X X X X X L X X Jam Sta L \* /Tx Ena H  
L L X X X X X L X X X X X L X X Retry Sta L \* /RTRY H \* /Retry L \* /Tx Ena H

OUTPIN 17 X X H H X X H X X X X X X X X Clsn H \* /Done Jam L \* Tx Act H \* /Retry Sta L  
X X H H X X X X X X X X L X X Jam Sta L \* /Done Jam L \* Tx Act H

OUTPIN 16 X L H X X X H X X X X L X X X X Pre LCOL L \* Clsn H \* Tx Act H \* /Tx Ena H  
X L X X X X X X X X X L X X X LCOL L \* /Tx Ena H

OUTPIN 15 X L H X X X X X X X X X X X Slottim En H \* Tx Act H \* /Tx Ena H  
X L H X X X X X X X X L X X X X Pre LCOL L \* Tx Act H \* /Tx Ena H

OUTPIN 14 X L H X X L X X X L X X X X X /Corr H \* Pre LCAR L \* Tx Act H \* /Retry Sta L \* /Tx Ena H  
X L L X X X X X H X L X X H X /Pre LCAR L \* /Tx Act H \* Pre LCOL L \* /Retry Sta L \* /Tx Ena H  
X L H X X X X X L X X X H X LCAR L \* /Retry Sta L \* Tx Act H \* /Tx Ena H  
X L L X X X X X L X X X X LCAR L \* /Tx Act H \* /Tx Ena H

OUTPIN 13 X L H X X H X X X X X X X X Corr H \* /Retry Sta L \* Tx Act H \* /Tx Ena H  
X L H X X X X X L X X X H X Pre LCAR L \* /Retry Sta L \* Tx Act H \* /Tx Ena H  
X L L X X X X X L X X X X X Pre LCAR L \* /Tx Act H \* /Tx Ena H

OUTPIN 12

|  |           |            |         |                         |                                   |                     |                       |                                       |                |          |                     |        |  |
|--|-----------|------------|---------|-------------------------|-----------------------------------|---------------------|-----------------------|---------------------------------------|----------------|----------|---------------------|--------|--|
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|  | CHK       | CHANGE NO. |         |                         | REV                               | DATE: 08-NOV-82     | BOARD LOCATION:       |                                       | SHEET 1 OF 1   |          |                     |        |  |
|  |           |            |         |                         | DSK:LNKTTD.T2PL4.271              | 08-NOV-82 16:14     | NEXT HIGHER ASSEMBLY: |                                       | SIZE: K        | CODE: CS | NUMBER: M7793-0-TTD | REV: A |  |
|  |           |            |         |                         | FIRST USED ON OPTION/MODEL: DEUNA |                     |                       |                                       | D-UA-M7793-0-0 |          |                     |        |  |

PART NUMBER: 23-035K4-00

LOCATION: E22

DEVICE TYPE: PAL16R6  
PIN NUMBER = SYMBOL TABLE:

```

1= CLK          B= SEL2 H          15= RMD1 L
2= RAN3 H       9= SEL3 H          16= RMD2 L
3= RAN2 H       10= GND            17= RMD3 L
4= RAN1 H       11= EN             18= RMD4 L
5= RAN0 H       12= Load L        19= RAN4 H
6= SEL0 H       13= ONE L          20= VCC
7= SEL1 H       14= RMD0 L

```

NOTES: RNMS1.PAL - (LNKK)  
This program implements the random number mask function  
specified in the Ethernet spec.

PAL PINS: 1000000011111111  
2345678923456789

OUTPIN 19

```

OUTPIN 18  X X X X X X X H L X X X X X H SEL3 H * RAN4 H * Load L
            X X X X X X H X L X X X X X H SEL2 H * RAN4 H * Load L
            X X X X X X X H X X X X X L X RMD4 L * /Load L

```

```

OUTPIN 17 H X X X X X H L X X X X X X SEL3 H * RAN3 H * Load L
            H X X X X X H L X X X X X X SEL2 H * RAN3 H * Load L
            H X X X H H X X L X X X X X SEL0 H * SEL1 H * RAN3 H * Load L
            X X X X X X X H X X X X L X X RMD3 L * /Load L

```

```

OUTPIN 15  X H X X X H X X L X X X X X X SEL1 H * RAN2 H * Load L
            X H X X X X H X L X X X X X X SEL2 H * RAN2 H * Load L
            X H X X X X X H L X X X X X X SEL3 H * RAN2 H * Load L
            X X X X X X X X H X X X L X X X RND2 L * /Load L

```

```

OUTPIN 15  X X H X H X X X L X X X X X X SEL0 H * RAN1 H * Load L
            X X H X X H X X L X X X X X X SEL1 H * RAN1 H * Load L
            X X H X X X H X L X X X X X X SEL2 H * RAN1 H * Load L
            X X H X X X X H L X X X X X X SEL3 H * RAN1 H * Load L
            X X X X X X X X H X X L X X X X RMD1 L * /Load L

```

```

OUTPIN 14  X X X H X X X X L X X X X X X X RAN0 H * Load L
            X X X X X X X X H X L X X X X X RMD0 L * /Load L

```

```

OUTPIN 13  X X X X H L L X X X X X X X /SEL3 H ■ /SEL2 H ■ /SEL1 H ■ SFI0 H

```

OUTPIN 12

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| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |

digital

|        |                      |
|--------|----------------------|
| DRN    | <i>R. L. Sargent</i> |
| CHK'D. | Ken. Sargent         |

|           |      |
|-----------|------|
| DATE      | ENG. |
| 08-NOV-82 | Ne1  |
| DATE      | BOAR |
| 02-NOV-82 | ENR  |

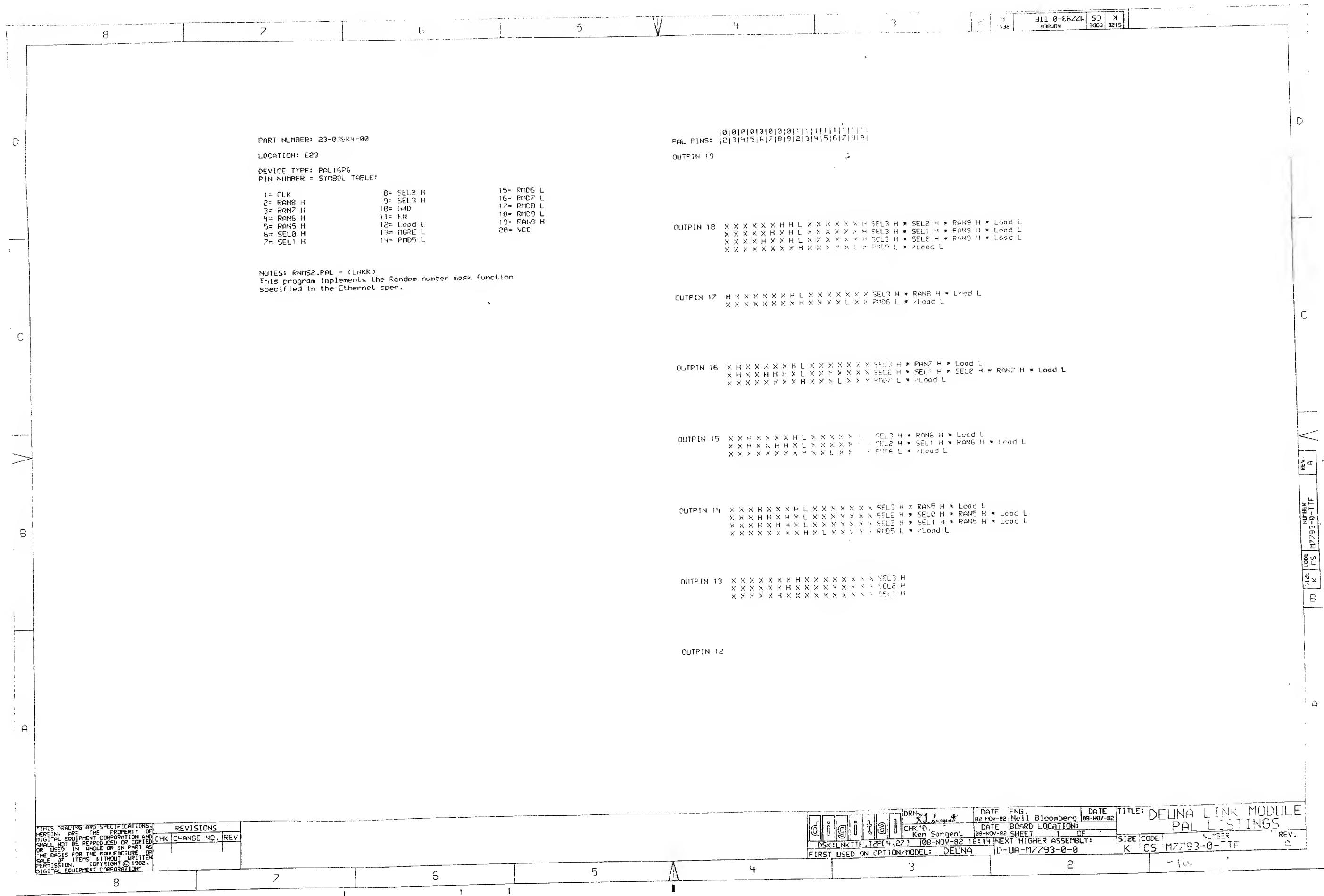
|             |                  |
|-------------|------------------|
| Bloomberg   | DATE<br>08-NOV-8 |
| D LOCATION: |                  |

|   |  |
|---|--|
| 2 | TITLE: DEUNA LINK MODULE<br>PAL LISTINGS |
|---|--|

|                                   |                 |                       |
|-----------------------------------|-----------------|-----------------------|
| DSK:LNKITE.T2P[4,27]              | 08-NOV-82 16:14 | NEXT HIGHER ASSEMBLY: |
| FIRST USED ON OPTION/MODEL: DEUNA | D-4A-17793-0-0  |                       |

|      |      |             |
|------|------|-------------|
| SIZE | CODE | NUMBER      |
| K    | CS   | M7793-0-TTE |

REV. 10-1-68



PART NUMBER: 23-036K4-00  
LOCATION: E23  
DEVICE TYPE: PAL16P6  
PIN NUMBER = SYMBOL TABLE:

- |           |            |            |
|-----------|------------|------------|
| 1= CLK    | 8= SEL2 H  | 15= RMD6 L |
| 2= RAN8 H | 9= SEL3 H  | 16= RMD7 L |
| 3= RAN7 H | 10= LMD    | 17= RMD8 L |
| 4= RAN5 H | 11= EN     | 18= RMD9 L |
| 5= RAN5 H | 12= Load L | 19= RAN9 H |
| 6= SEL0 H | 13= MORE L | 20= VCC    |
| 7= SEL1 H | 14= RMD5 L |            |

NOTES: RNMS2.PAL = (LNKK)  
This program implements the Random number mask function specified in the Ethernet spec.

PAL PINS: 10101010101011111111111111111111  
213141516171819213141516171819

OUTPIN 19

OUTPIN 18 X X X X X H L X X X X X X SEL3 H \* SEL2 H \* RAN8 H \* Load L  
X X X X X H L X X X X X X SEL3 H \* SEL1 H \* RAN9 H \* Load L  
X X X X X H L X X X X X X SEL1 H \* SEL0 H \* RAN9 H \* Load L  
X X X X X X X H X X X X X L X RMD9 L \* Load L

OUTPIN 17 H X X X X X H L X X X X X X SEL3 H \* RAN8 H \* Load L  
X X X X X X X H X X X X L X X RMD8 L \* Load L

OUTPIN 16 X X X X X H L X X X X X X SEL3 H \* RAN7 H \* Load L  
X X X X H H X L X X X X X X SEL2 H \* SEL1 H \* SEL0 H \* RAN7 H \* Load L  
X X X X X X X H X X X L X X X RMD7 L \* Load L

OUTPIN 15 X X X X X H L X X X X X X SEL3 H \* RAN5 H \* Load L  
X X X X H H X L X X X X X X SEL2 H \* SEL1 H \* RAN6 H \* Load L  
X X X X X X X H X X L X X X RMD6 L \* Load L

OUTPIN 14 X X X X X H L X X X X X X SEL3 H \* RAN5 H \* Load L  
X X X H H X H L X X X X X X SEL2 H \* SEL0 H \* RAN5 H \* Load L  
X X X H H X H L X X X X X X SEL1 H \* SEL1 H \* RAN5 H \* Load L  
X X X X X X X H X L X X X X X RMD5 L \* Load L

OUTPIN 13 X X X X X H X X X X X X X SEL3 H  
X X X X X H X X X X X X X SEL2 H  
X X X X X H X X X X X X X SEL1 H

OUTPIN 12

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|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|                                   |                           |                       |                 |  |
|-----------------------------------|---------------------------|-----------------------|-----------------|--|
| digital                           | DRN: <i>K16 August</i>    | DATE ENG: 08-NOV-82   | DATE: 08-NOV-82 | TITLE: DELNA LINK MODULE<br>PAL LISTINGS |
|                                   | CHK'D: <i>Ker Sargent</i> | DATE: 08-NOV-82       | DATE: 08-NOV-82 |  |
| DSK: LNK1TF.12PL4.223             |                           | NEXT HIGHER ASSEMBLY: |                 | SIZE: CODE                               |
| FIRST USED ON OPTION/MODEL: DELNA |                           | D-UA-M7793-0-0        |                 | NUMBER: K CS M7793-0-TTF                 |

REV. A  
NUMBER M7793-0-TTF  
CS  
ID

PART NUMBER: 23-028K5-00

LOCATION: E37

DEVICE TYPE: PAL16R8  
PIN NUMBER = SYMBOL TABLE:

|                     |                  |                    |
|---------------------|------------------|--------------------|
| 1= CLK              | B= Inter Pack L  | 15= No Carr Sta L  |
| 2= ON H             | 9= Adv PTR L     | 16= Rx Active L    |
| 3= Carr H           | 10= GND          | 17= Bad Pack Sta L |
| 4= Runt Or NMatch H | 11= EN           | 18= Pack Ok Sta L  |
| 5= NC H             | 12= Rx Ena Sta L | 19= Miss L         |
| 6= Free Rx Buff H   | 13= Res PTR L    | 20= VCC            |
| 7= NC H             | 14= Inc PTR L    |                    |

NOTE: RXST1.PAL - (LNKH)

This program is the memory contents of the PAL logic used to form the Receive State machine. This PAL is used to receive the Preamble, Data, and check the CRC. If there is an error the State machine will jump to either the Miss, or Bad Pack State. If a packet is received without error the program will sequence to the write status routine in RKSTA2.PAL.

PAL PINS: 1000000011111111  
2345678923456789

```

OUTPIN 19 H X X X L X X X X X X L X X X Rx Active L * /Free Rx Buff H * ON H
           H X X X X X X X X X X L X X L Miss L * Rx Active L * ON H

```

```

OUTPIN 18  H L L X X X X X X X X L X X H Rx Active L * /Carr H * /Runt Or NMatch H * /Miss L * ON H

```

```
OUTPIN 17  H L H X X X X X X X X L X X X Rx Active L * /Carr H * Runt Or NMatch H * ON H
```

```

OUTPIN 16  H H X X X X X X X L X X X X No Carr Sta L * ON H * Carr H
            H H X X X X X X X X L H X X Rx Active L * /Bad Pack Sta L * Carr H * ON H
            H H X X X X X X X X L H X X Rx Active L * /Pack Ok Sta L * Carr H * ON H

```

```

OUTPIN 15 H L X X X X X L X X X X X Rx Ena Sta L * /Carr H * ON H
           H L X X X X X X X L H X X X No Carr Sta L * /Rx Active L * /Carr H * ON H

```

```

OUTPIN 14 H X X X X X X X X L X X X X X X Res PTR L * ON H

```

OUTPIN 13 H H X X X X X X X X L X X X X No Carr Sta L \* ON H \* Carr H

```

OUTPIN 12  L X X X X X X X X X X X X X X X /ON H
            H X X X X X L X X X X X X X X X Adu PTR L X ON H
            H X X X X X X X X X X X L X Bad Pack Sta L X ON H
            H X X X X X X X X X X X X L Miss L X ON H X Rx Active L
            H H X X X X X L X X X X X X X X Rn Enda Sta L X Carr X ON H

```

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|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |

digit a

|        |                    |
|--------|--------------------|
| DRN    | <i>Ken Sargent</i> |
| CHK'D. | Ken Sargent        |

|           |      |
|-----------|------|
| DATE      | ENG. |
| 08-NOV-82 | Neil |
| DATE      | BOAR |
| 08-NOV-82 | SHEE |

|             |                   |
|-------------|-------------------|
| Bloomberg   | DATE<br>88-NOV-82 |
| D LOCATION: |                   |
| T 1         | OF 1              |

TITLE: DEUNA LINK MODULE  
PAL LISTINGS

|                                  |           |
|----------------------------------|-----------|
| DSK:LNKTH.T2P[4,27]              | 08-NOV-82 |
| FIRST USED ON OPTION/MODEL: DELU |           |

|         |                       |
|---------|-----------------------|
| 2 16:14 | NEXT HIGHER ASSEMBLY: |
| NA      | D-UA-M7793-0-0        |

|      |      |             |      |
|------|------|-------------|------|
| SIZE | CODE | NUMBER      | REV. |
| K    | CS   | M7793-0-TTH | A    |



PART NUMBER: 23-037K4-00

LOCATION: E102, E103

DEVICE TYPE: PAL16R6  
PIN NUMBER = SYMBOL TABLE:

```

1= CLK                8= Rx In H                15= Match3 L
2= STA ADR0 H         9= Clr L                16= Match2 L
3= STA ADR1 H         10= GND                17= Match1 L
4= STA ADR2 H         11= EN                 18= Match0 L
5= STA ADR3 H         12= CRY Out L          19= CRY In H
6= STA ADR4 H         13= Match5 L           20= VCC
7= STA ADR5 H         14= Match4 L

```

NOTES: STMT1.PAL - (LNKF)

This program is the memory contents of the PAL logic used to form the Station Address Detection STA ADR Logic.

PAL PINS: 10101010111111111111  
2345678923456789

OUTPIN 19

```

OUTPIN 18 L X X X X L X X X X X X L X /Rx In H * /STA ADR0 H * Match0 L
          H X X X X X H X X X X X X L X Rx In H * STA ADR0 H * Match0 L
          X X X X X L X X X X X X Clr L

```

```

OUTPIN 17  X L X X X L X X X X X L X X /Rx In H * /STA ADRI H * Match1 L
            X H X X X H X X X X X L X X Rx In H * STA ADRI H * Match1 L
            X X X X X L X X X X X X C Ir L

```

```

OUTPIN 16  X X L X X X L X X X X L X X X /Rx In H * /STA ADR2 H * Match2 L
            X X H X X X H X X X X L X X X Rx In H * STA ADR2 H * Match2 L
            X X X X X X L X X X X X X X Clr L

```

```

OUTPIN 15  X X X L X X L X X X L X X X /Rx In H * /STA ADR3 H * Match3 L
            X X X H X X H X X X L X X X Rx In H * STA ADR3 H * Match3 L
            X X X X X X L X X X X X X X Clr L

```

```

OUTPIN 14  X X X L X L X X L X X X X /Rx In H * /STA ADR4 H * Match4 L
            X X X X H X X X L X X X X Rx In H * STA ADR4 H * Match4 L
            X X X X X L X X X X X X X Clr L

```

```

OUTPIN 13  X X X X L L X X L X X X X X /Rx In H * /STA ADR5 H * Match5 L
            X X X X X H X X L X X X X X X Rx In H * STA ADR5 H * Match5 L
            X X X X X X L X X X X X X X Clr L

```

```

OUTPIN 12  X X X X X X X X X X X X X X VCC
            X X X X X X X X X X X X X X Match0 L
            X X X X X X X X X X X X X X Match1 L
            X X X X X X X X X X X X X X Match2 L
            X X X X X X X X X X X X X X Match3 L
            X X X X X X X X X X X X X X Match4 L
            X X X X X X X X X X X X X X Match5 L
            X X X X X X X X X X X X X X CRY_In H

```

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| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |

digital

|        |                      |
|--------|----------------------|
| DRN    | <i>K. L. Sargent</i> |
| CHK'D. | Ken Sargent          |

|           |       |
|-----------|-------|
| DATE      | ENG.  |
| 18-NOV-82 | Ne11  |
| DATE      | BOARD |
| 18-NOV-82 | SHEE  |

|             |          |
|-------------|----------|
| Bloomberg   | DATE     |
| D LOCATION: | 18-NOV-8 |

TITLE: DEUNA LINK MODULE  
PAL LISTINGS

DSK:LNKTTK.T2PL4,27] 10-NOV-82  
FIRST USED ON OPTION/MODEL: DELIN

|       |                       |
|-------|-----------------------|
| 13:59 | NEXT HIGHER ASSEMBLY: |
| NA    | D-UA-M7793-0-0        |

|      |      |             |      |
|------|------|-------------|------|
| SIZE | CODE | NUMBER      | REV. |
| K    | CS   | M7793-0-TTK | A    |

|      |      |             |      |
|------|------|-------------|------|
| SIZE | CODE | NUMBER      | REV. |
| K    | CS   | M7793-0-TTL | A    |



PART NUMBER: 23-026K5-00

LOCATION: E51

DEVICE TYPE: PAL16R8

DEVICE TYPE: PAL16R8  
PIN NUMBER = SYMBOL TABLE:

1= CLK  
2= Data State L  
3= DTCR H  
4= RTRY H  
5= ON H  
6= Tx Frame H  
7= Cnt Done H

```

8= CLSN H
9= MEM CYCDN H
10= GND
11= EN
12= CRC1 State L
13= CRC2 State L
14= RES PTR L

```

```

15= Tx WR Stat0 L
16= Tx WR Stat1 L
17= Sel Tx CRC L
18= Done L
19= Stat Req L
20= VCC

```

NOTES: TXST2.PAL - (LNKL)

This program is the memory contents of the PAL logic used to form the transmit State machine. This PAL is used to transmit the CRC at the end of the packet. If a CLSNisn should occur all States will be cleared. At the end of the CRC or if DTCR is valid at the end of the Data field the PAL will then Write Status to the Link Memory buffer in the PORT.

PAL PINS: 1000000011111111  
2345678923456789

```
OUTPIN 19 XXXHXXXLXXXLXXXXTxWRStat0L*/MEMCYCDNH*ONH
          XXXHXXXLXXXLXXXXTxWRStat1L*/MEMCYCDNH*ONH
          XXXHXXXLXXXLXXXXLStatReqL*/MEMCYCDNH*ONH
```

OUTPIN 1B X X X H X X X H X X X L X X X Tx WR Stat1 L \* ON H \* MEM CYCDN H

```

OUTPIN 17  X X X H X H L X X X X X X X Cnt Done H * /CLSN H * ON H
            X X X H X X L X X X H X X L X X Sel Tx CRC L * /CLSN H * /RES PTR L * ON H

```

```

OUTPIN 16  X X X H X X X H X X X L X X X Tx WR Stat0 L * MEM CYCDN H * ON H
            X X X H X X X L X X X X L X X X Tx WR Stat1 L * MEM CYCDN H * ON H

```

```

OUTPIN 15  X X X H X X X X X L X X X X RES PTR L * ON H
            X X X H X X X L X X X L X X X X Tx WR Stat0 L * MEM CYCDN H * ON H

```

```

OUTPIN 14  X X X H H X L X X L X X X X X CRC2 State L * Tx Frame H * /CLSN H * ON H
            L H X H X H X X X X X X X X Data State L * Cnt Done H * ON H * DTCR H
            X X H H X X X X X X X X X X RTRY H * ON H

```

```
OUTPIN 13  X L X H H X L X L X X X X X CRC1 State L * Tx Frame H * /CLSN H * ON H * /DTCR H
            X L X H L X L X L H X X X X CRC2 State L * /Tx Frame H * ON H * /RES PTR L * /CLSN H * /DTCR H
```

```

OUTPIN 12 L L X H X H L X X X X X X X Data State L * Cnt Done H * ON H * /CLSN H * /DTCR H
          X L X H X X L X L H X X X X X CRC1 State L * /CRC2 State L * ON H * /CLSN H * /DTCR H

```

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| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|                                       |                      |           |                       |           |  |
|---------------------------------------|----------------------|-----------|-----------------------|-----------|--|
| digital                               | DRN                  | DATE      | ENG.                  | DATE      | TITLE: DEUNA LINK MODULE<br>PAL LISTINGS |
|                                       | CHK'D<br>Ken Sargent | 09-NOV-82 | Neil Bloomberg        | 09-NOV-82 |  |
|                                       |                      | DATE      | BOARD LOCATION:       |           |  |
|                                       |                      | 09-NOV-82 | SHEET 1 OF 1          |           |  |
| DSK: LNKTTM.T2PL4.273 08-NOV-82 16:15 |                      |           | NEXT HIGHER ASSEMBLY: |           |  |
| FIRST USED ON OPTION/MODEL: DEUNA     |                      |           | D-UP-M7793-0-0        |           |  |
|                                       | SIZE                 | CODE      | NUMBER                |           | REV.                                     |
|                                       | K                    | CS        | M7793-0-TTM           |           | A  |

|                                      |                         |                 |                              |                 |                                      |          |                     |        |
|--------------------------------------|-------------------------|-----------------|------------------------------|-----------------|--------------------------------------|----------|---------------------|--------|
| digital                              | DRN: <i>Ken Sargent</i> | DATE: 08-NOV-82 | ENG: Neil Bloomberg          | DATE: 08-NOV-82 | TITLE: DEUNA LINK MODULE             |          |                     |        |
|                                      | CHK'D: Ken Sargent      | DATE: 08-NOV-82 | BOARD LOCATION: SHEET 1 OF 1 |                 | PAL LISTINGS                         |          |                     |        |
| DSK:LNKTTN.12PL4.271 08-NOV-82 16:15 |                         |                 |                              |                 | NEXT HIGHER ASSEMBLY: D-UA-M7793-0-0 |          |                     |        |
| FIRST USED ON OPTION/MODEL: DEUNA    |                         |                 |                              |                 | SIZE: K                              | CODE: CS | NUMBER: M7793-0-TTN | REV: A |

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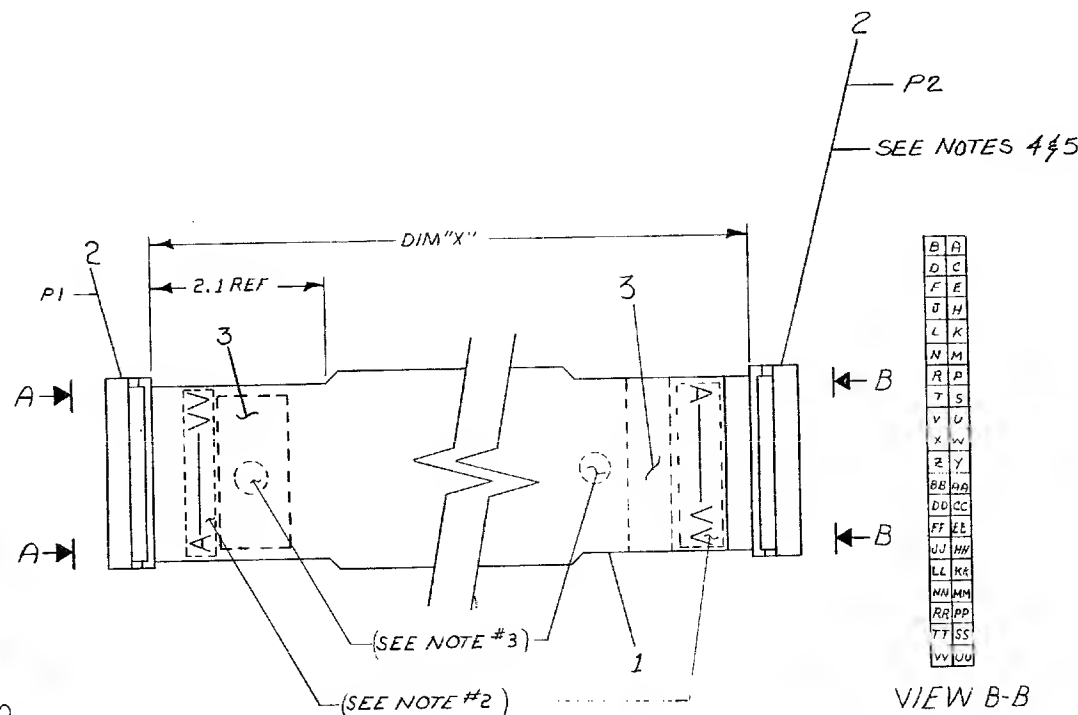
| WIRE TABLE |       |       |      |
|------------|-------|-------|------|
| FROM       | TO    | FROM  | TO   |
| PI-A       | P2-VV | PI-Y  | P2-X |
| PI-B       | P2-UU | PI-Z  | P2-W |
| PI-C       | P2-TT | PI-AA | P2-V |
| PI-D       | P2-SS | PI-BB | P2-U |
| PI-E       | P2-RR | PI-CC | P2-T |
| PI-F       | P2-PP | PI-DD | P2-S |
| PI-H       | P2-NN | PI-EE | P2-R |
| PI-J       | P2-MM | PI-FF | P2-P |
| PI-K       | P2-LL | PI-HH | P2-N |
| PI-L       | P2-KK | PI-JJ | P2-M |
| PI-M       | P2-JJ | PI-KK | P2-L |
| PI-N       | P2-HH | PI-LL | P2-K |
| PI-P       | P2-FF | PI-MM | P2-J |
| PI-R       | P2-EE | PI-NN | P2-H |
| PI-S       | P2-DD | PI-PP | P2-F |
| PI-T       | P2-CC | PI-RR | P2-E |
| PI-U       | P2-BB | PI-SS | P2-D |
| PI-V       | P2-AA | PI-TT | P2-C |
| PI-W       | P2-Z  | PI-UU | P2-B |
| PI-X       | P2-Y  | PI-VV | P2-A |

| LEGEND     |     |            |                             |
|------------|-----|------------|-----------------------------|
| NUMBER     | REV | DIM "X"    | PRECUT LENGTH               |
| BC08R-01   | T1  | 1.00 FT.   | 1.00 FT. 1.5 IN. 3.00 IN.   |
| BC08R-02   |     | 2.00 FT.   | 2.00 FT. 1.5 IN. 3.00 IN.   |
| BC08R-03   |     | 3.00 FT.   | 3.00 FT. 1.5 IN. 3.00 IN.   |
| BC08R-04   |     | 4.00 FT.   | 4.00 FT. 1.5 IN. 3.00 IN.   |
| BC08R-05   |     | 5.00 FT.   | 5.00 FT. 1.5 IN. 3.00 IN.   |
| BC08R-06   |     | 6.00 FT.   | 6.00 FT. 1.5 IN. 3.00 IN.   |
| BC08R-07   |     | 7.00 FT.   | 7.00 FT. 1.5 IN. 3.00 IN.   |
| BC08R-08   |     | 8.00 FT.   | 8.00 FT. 1.5 IN. 3.00 IN.   |
| BC08R-09   |     | 9.00 FT.   | 9.00 FT. 1.5 IN. 3.00 IN.   |
| BC08R-10   |     | 10.00 FT.  | 10.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-11   |     | 11.00 FT.  | 11.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-12   |     | 12.00 FT.  | 12.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-13   |     | 13.00 FT.  | 13.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-14   |     | 14.00 FT.  | 14.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-15   |     | 15.00 FT.  | 15.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-16   |     | 16.00 FT.  | 16.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-17   |     | 17.00 FT.  | 17.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-18   |     | 18.00 FT.  | 18.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-19   |     | 19.00 FT.  | 19.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-20   |     | 20.00 FT.  | 20.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-25   |     | 25.00 FT.  | 25.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-30   |     | 30.00 FT.  | 30.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-35   |     | 35.00 FT.  | 35.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-50   |     | 50.00 FT.  | 50.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-60   |     | 60.00 FT.  | 60.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-75   |     | 75.00 FT.  | 75.00 FT. 1.5 IN. 3.00 IN.  |
| BC08R-100  |     | 100.00 FT. | 100.00 FT. 1.5 IN. 3.00 IN. |
| BC08R-A3   |     | 130.00 FT. | 130.00 FT. 1.5 IN. 3.00 IN. |
| BC08R-A6   |     | 160.00 FT. | 160.00 FT. 1.5 IN. 3.00 IN. |
| BC08R-20   |     | 28 IN.     | 29.50 IN. ± 1.0 IN.         |
| BC08R-2J   |     | 32 IN.     | 33.50 IN. ± 1.0 IN.         |
| BC08R-0FTI |     | 6 IN.      | 7.50 IN. ± 0.5 IN.          |

1. DELETED.
2. CONNECTOR LEGEND IDENTIFICATION TO BE PLACED ON SHIELD SIDE OF CABLE IN THIS AREA AS SHOWN.
3. INSPECTION & TEST STAMPS TO BE PLACED AT EACH END OF THE CABLE ASSY.
4. STRIP LENGTH SHOULD BE  $5/32 \pm 1/32$ .
5. WHEN INSTALLING STRAIN RELIEF, MAKE SURE THAT THE RECESSED SIDE IS AGAINST THE CABLE.

|       |
|-------|
| UU VV |
| SS TT |
| PP RR |
| MM NN |
| KK LL |
| HH JJ |
| EE FF |
| CC DD |
| AA BB |
| Y Z   |
| W X   |
| U V   |
| S T   |
| P R   |
| M N   |
| K L   |
| H J   |
| E F   |
| C D   |
| A B   |

VIEW A-A  
CONN LEGEND REF



VIEW B-B  
CONN LEGEND REF

CAUTION:  
OFF SHEET PARTS LIST  
K-PL-BC08R-0-0.

|                                     |            |   |
|-------------------------------------|------------|---|
| 1 LABEL IDENT                       | 3616073-00 | 3 |
| 2 CONNECTOR, 40 SOCKET              | 1211206    | 2 |
| 3 AIR CABLE, 40 COND. FLAT W/SHIELD | 1700000    | 1 |

| DESCRIPTION   |                                     | DWG/PART NO.                   | ITEM NO.                  |  |
|---|-------------------------------------|--------------------------------|---------------------------|--|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES |                                     |                                |                           |  |
| ANGLES<br>±0° 30'                                   | CLASS OF<br>ACCURACY<br>(CHECK ONE) | NOMINAL DIMENSION RANGE INCHES |                           |  |
| SURFACE<br>QUALITY                                  | IN                                  | OVER<br>0<br>TO<br>0.2         | OVER<br>0.2<br>TO<br>1.2  |  |
|   |                                     | OVER<br>1.2<br>TO<br>4.0       | OVER<br>4.0<br>TO<br>12.0 |  |
| MICROINCHES   | PREFERRED                           | ±.004                          | ±.008                     |  |
|   |                                     | ±.012                          | ±.016                     |  |
| QUANTITY & VARIATION                                |                                     | ±.025                          | ±.04                      |  |
| THIRD ANGLE PROJECTION                              |                                     | ±.063                          | ±.1                       |  |

|                    |         |                            |         |
|--------------------|---------|----------------------------|---------|
| DRN. FONTAINE      | 3-29-70 | FIRST USED ON              | digital |
| CHK'D FLEMING      | 6-28-70 | TITLE<br>BC08R<br>10 CABLE |         |
| ENGR. GARDNER      | 9-3-70  |                            |         |
| PROJ. ENG. GARDNER | 9-3-70  |                            |         |
| PROD. DONALD       | 9-4-70  |                            |         |
| DO NOT SCALE DWG   |         | NEXT HIGHER ASSY.          |         |
| MATERIAL           |         | SCALE                      |         |
| FINISH             |         | SHEET 1 OF 1               |         |

|      |      |           |      |
|------|------|-----------|------|
| SIZE | CODE | NUMBER    | REV. |
| D    | UA   | BC08R-0-0 | T    |

| REVISIONS         | CHANGE NO. | REV. |
|-------------------|------------|------|
| BC08R-00205       | L          | 1    |
| REVISED & REDRAWN |            |      |
| 1-1-76            |            |      |
| S. HOLMES         |            |      |
| 1-23-76           |            |      |
| C. BC08R-00007    | M          | 1    |
| 1-24-76           |            |      |
| P. GARDNER        |            |      |
| 1-24-76           |            |      |
| BC08R-ML008       | N          | 1    |
| 1-24-76           |            |      |
| D. FRENIERE       |            |      |
| 1-24-76           |            |      |
| BC08R-MK009       | P          | 1    |
| 1-24-76           |            |      |
| D. FRENIERE       |            |      |
| 1-24-76           |            |      |
| BC08R-MK010       | R          | 1    |
| 1-24-76           |            |      |
| DAVID ZOPF        |            |      |
| 1-24-76           |            |      |
| BC08R-MK011       | S          | 1    |
| 1-24-76           |            |      |
| CHRIS RYAN        |            |      |
| 1-24-76           |            |      |
| BC08R-MK012       | T          | 1    |
| 1-24-76           |            |      |
| T. HUMMEL         |            |      |
| 1-24-76           |            |      |
| C. RYAN           |            |      |
| 1-24-76           |            |      |

| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN<br>REV | DESCRIPTION                    | QTY PER VARIATION |     |     |     |     |     |     |     |     |     |     |     |
|------|------|--------------|-------------|------------|--------------------------------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      |      |              |             |            |                                | 01                | 02  | 03  | 04  | 05  | 06  | 07  | 08  | 09  | 10  | 11  | 12  |
|      |      |              |             |            |                                | T1                | T1  | T1  | T1  | T1  | T1  | T1  | T1  | T1  | T1  | T1  | T1  |
| 1    | 1    |              | 1700004-00  |            | CABLE,RIBBON BOND 40CCND 30AWG | A/R               | A/R | A/R | A/R | A/R | A/R | A/R | A/R | A/R | A/R | A/R | A/R |
| 2    | 2    |              | 1211206-00  |            | CONN,IDC 40SKI(2X20).100CC GOL | 2                 | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   |
| 3    | 3    |              | 3616073-00  |            | LABEL,ID w/COPY VERTICAL       | 2                 | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   |

|   |             |     |                         |  |                    |                      |                         |      |           |     |
|---|-------------|-----|-------------------------|--|--------------------|----------------------|-------------------------|------|-----------|-----|
| REVISION HISTORY  |             |     | BASIC PART NO: BC08R    |  | DRN: R.FONTAINE    | DATE: 28-AUG-70      | D I G I T A L           |      |           |     |
| ENG   | ECD NUMBER  | REV | SECTION A OF C          |  | CHK'D: J.FLEMING   | DATE: 28-AUG-70      | TITLE PARTS LIST        |      |           |     |
| IDF   | BC08R-MK009 | P   | SECTION VARIATION INDEX |  | DES.ENG: P.GARDNER | DATE: 09-MAR-70      | DOCUMENT NUMBER         |      |           |     |
| IDZ   | BC08R-MK010 | R   | [A]01,02,03,04,05,06,   |  | <i>David Zopf</i>  | DATE: 14-DEC-81      | SIZE                    | CODE | NUMBER    | REV |
| ICR   | BC08R-MK011 | S   | 07,08,09,10,11,12       |  |                    |                      | K                       | PL   | BC08R-0-0 | I   |
| ICR   | BC08R-MK012 | T   | [B]13,14,15,16,17,18,   |  |                    |                      | RELEASE DATE: 17-JAN-85 |      |           |     |
|   |             |     | 19,20,25,30,35,50       |  | INF.ENG.: J.FISKO  | DATE: 14-DEC-81      |                         |      |           |     |
|   |             |     | [C]60,75,A0,A3,A5,2D,   |  | ASSEMBLY NUMBER:   | TOP DOCUMENT NUMBER: | FILE NAME:              |      | EDIT #    |     |
|   |             |     | 2J,OF                   |  | ID-UA-BC08R-0-0    |                      | MK0406.PLS              |      | 5         |     |
|   |             |     | [D]                     |  |                    |                      |                         |      |           |     |
|   |             |     | [E]                     |  |                    |                      |                         |      |           |     |
|   |             |     | [F]                     |  |                    |                      |                         |      |           |     |
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AUTOMATED BY PRTLST,5R(55)

PARTS LIST

SHEET A1 OF A1

| LINE | ITEM | TOP DOCUMENT       | PART NUMBER | MIN<br>REV | DESCRIPTION              | VARIATION REVISION LEVEL: | QTY PER VARIATION |    |    |    |
|------|------|--------------------|-------------|------------|--------------------------|---------------------------|-------------------|----|----|----|
|      |      |                    |             |            |                          |                           | 00                | KL | KM | K1 |
|      |      |                    |             |            |                          |                           | A1                | A1 | A1 | A1 |
| 1    | 1    | D-AD-7018799-0-0   | 7018799-00  |            | UNA BULKHEAD ASSY.       |                           | REF               | 1  | 1  | 1  |
| 2    | 2    | D-IA-7018798-0-0   | 7018798-08  |            | UNA BULKHEAD CABLE ASSY. |                           | REF               | 0  | 1  | 1  |
| 3    | 3    | D-IA-7018798-0-0   | 7018798-04  |            | UNA BULKHEAD CABLE ASSY. |                           | REF               | 1  | 0  | 0  |
| 4    | 4    | D-IA-7427292-0-DBU | 7427292-01  |            | FRAME,I/O DOUBLE QUAD    |                           | REF               | 1  | 1  | 1  |
| 5    | 5    |                    | 9006073-03  |            | SCREW,MACH TRUSS PHIL    | 10-                       | REF               | 0  | 0  | 2  |
| 6    | 6    |                    | 9007786-00  |            | RETAINER,U-NUT           | 10-32X                    | REF               | 0  | 0  | 2  |

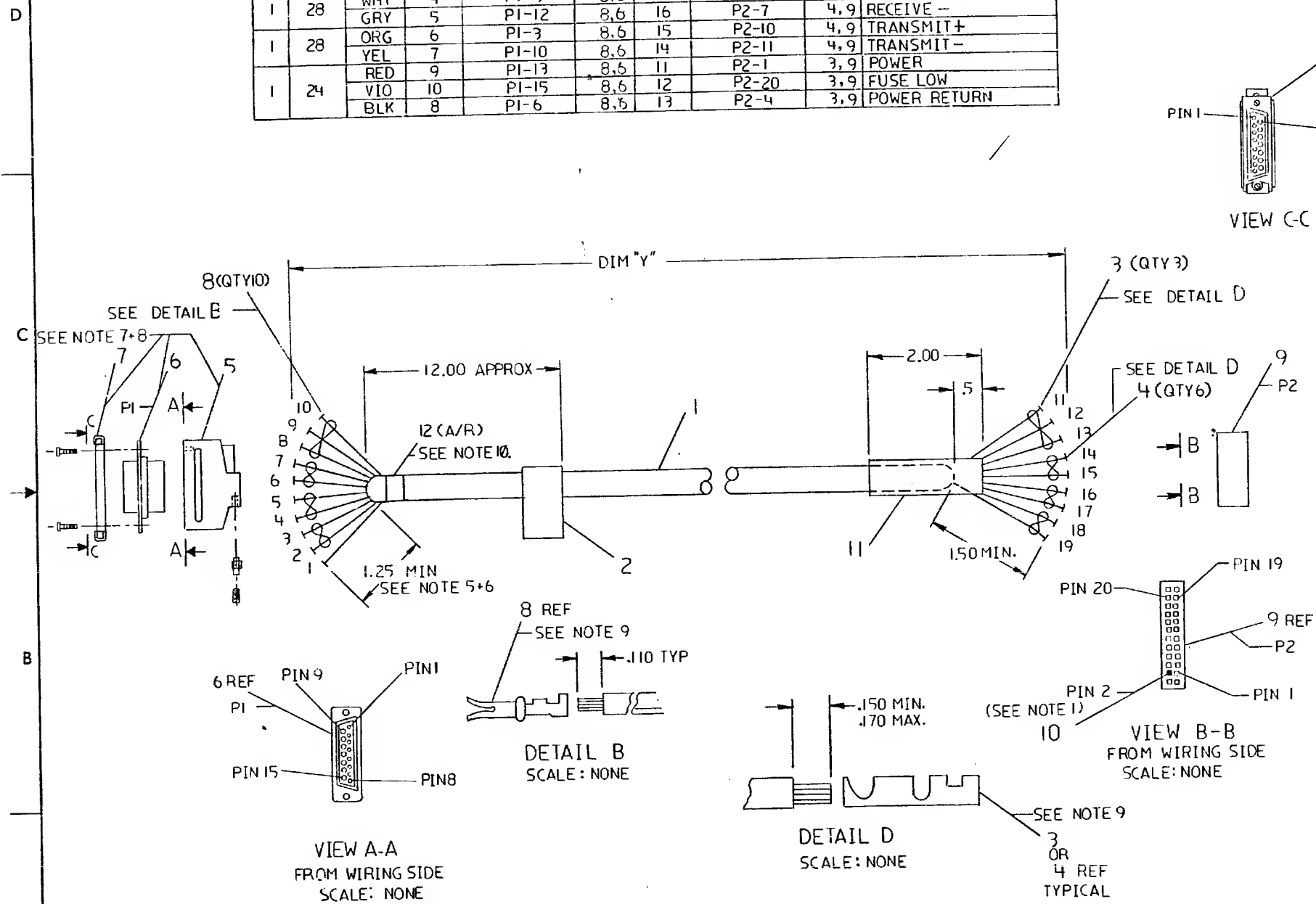
|                  |            |     |   |                              |                         |                  |               |  |   |  |
|------------------|------------|-----|---|------------------------------|-------------------------|------------------|---------------|--|---|--|
| REVISION HISTORY |            |     | BASIC PART NO: CKDEUNA                    |                              | DRN: <i>M. Mattock</i>  | DATE: 05-12-85   | D I G I T A L |  |   |  |
| ENG              | ECO NUMBER | REV | SECTION A OF A                            | CHK'D: <i>F. Carbone</i>     | DATE: 03 Mar 85         | TITLE PARTS LIST |               |  |   |  |
| ---              | INITIAL    | A   | SECTION VARIATION INDEX<br>[A]00,KL,KM,K1 | DES.ENG: <i>M. Mattock</i>   | DATE: 01-MAR-85         | DEUNA CAB KIT    |               |  |   |  |
|                  |            |     | [B]                                       | RESP.ENG.: <i>M. Mattock</i> | DATE: 01-MAR-85         | DOCUMENT NUMBER  |               |  |   |  |
|                  |            |     | [C]                                       | DATE: 05 Mar 85              | SIZE CODE NUMBER REV    |                  |               |  |   |  |
|                  |            |     | [D]                                       | DATE: 01-MAR-85              | K PL CKDEUNA-0-0 A      |                  |               |  |   |  |
|                  |            |     | [E]                                       | DATE: 01-MAR-85              | RELEASE DATE: 01-MAR-85 |                  |               |  |   |  |
|                  |            |     | [F]                                       | DATE: 06 Mar 85              | FILE NAME: MK1164.PLS   |                  |               |  |   |  |
|                  |            |     |   | ASSEMBLY NUMBER:             | TOP DOCUMENT NUMBER:    | EDIT             |               |  |   |  |
|                  |            |     |   |                              | #K-DD-CKDEUNA-0         |                  |               |  | 4 |  |

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|            |             |       |       |               |      |               |            |      |                      |   |  |   |  |   |  |
|------------|-------------|-------|-------|---------------|------|---------------|------------|------|----------------------|---|--|---|--|---|--|
| 2          |             | 0-0-0 |       | DIA 7018798-0 |      | DIA 7018798-0 |            | 6    |                      | 7 |  | 5 |  | ↓ |  |
| WIRE TABLE |             |       |       |               |      |               |            |      |                      |   |  |   |  |   |  |
| ITEM NO.   | DESCRIPTION |       | FROM  |               |      | TO            |            |      | REMARKS              |   |  |   |  |   |  |
|            | AWG         | COLOR | POINT | CONNECTION    | TERM | POINT         | CONNECTION | TERM |                      |   |  |   |  |   |  |
| i          | SHIELD      | —     | 1     | PI-1          | 8,6  | —             | —          | —    | SHIELD DRAIN WIRE    |   |  |   |  |   |  |
| 1          | 28          | BLU   | 2     | PI-2          | 8,6  | 19            | P2-14      | 4,9  | COLLISION PRESENCE + |   |  |   |  |   |  |
|            |             | GRN   | 3     | PI-9          | 8,6  | 18            | P2-15      | 4,9  | COLLISION PRESENCE - |   |  |   |  |   |  |
| 1          | 28          | WHT   | 4     | PI-5          | 8,6  | 17            | P2-6       | 4,9  | RECEIVE +            |   |  |   |  |   |  |
|            |             | GRY   | 5     | PI-12         | 8,6  | 16            | P2-7       | 4,9  | RECEIVE -            |   |  |   |  |   |  |
| 1          | 28          | ORG   | 6     | PI-3          | 8,6  | 15            | P2-10      | 4,9  | TRANSMIT +           |   |  |   |  |   |  |
|            |             | YEL   | 7     | PI-10         | 8,6  | 14            | P2-11      | 4,9  | TRANSMIT -           |   |  |   |  |   |  |
| 1          | 24          | RED   | 9     | PI-13         | 8,6  | 11            | P2-1       | 3,9  | POWER                |   |  |   |  |   |  |
|            |             | VIO   | 10    | PI-15         | 8,6  | 12            | P2-20      | 3,9  | FUSE LOW             |   |  |   |  |   |  |
|            |             | BLK   | 8     | PI-6          | 8,6  | 13            | P2-4       | 3,9  | POWER RETURN         |   |  |   |  |   |  |

| LEGEND     |                     |  |     |
|------------|---------------------|--|-----|
| NUMBER     | DIM'Y (PRECUT)      |  | REV |
| 7018798-08 | 7 FT. 10 IN ± 2 IN. |  | B2  |
| 7018798-04 | 4 FT. 0 IN ± 2 IN.  |  | B2  |
| 7018798-03 | 3 FT. 0 IN ± 2 IN   |  | A1  |
| 7018798-07 | 7 FT. 0 IN ± 2 IN   |  | A1  |

1. KEYING PLUG (ITEM 10) IS INSERTED INTO P2-2.
2. REMOVE JACKET & OUTER BRAID 1.50" TO ALLOW SEPARATION OF WIRES, P2 END.
3. STRIP FOIL SHIELD FROM WIRES, P2 SIDE.
4. CUT "SHIELD WIRE" FLUSH WITH OUTER JACKET, (P2 SIDE ONLY).
5. REMOVE JACKET & OUTER BRAID TO ALLOW SEPARATION OF WIRES, P1 SIDE.
6. STRIP FOIL SHIELD FROM WIRES 1.00 IN.
7. MOVE PLASTIC HOOD UP TO P1 CONNECTOR & ATTACH SLIDE LATCH ASSY. ITEM NO. 7 USING SLIDE LATCH ASSY SCREWS PROVIDED (DISCARD WASHERS & NUTS - ITEM NO. 7 ) TIGHTEN 3 IN - LBS. (DISCARD TWO CONNECTOR MOUNTING SCREWS HOOD ASSY ) ITEM NO. 5.
8. TIGHTEN STRAIN RELIEF SET SCREW ON PLASTIC HOOD. 3 IN - LBS.
9. HAND CRIMP TOOLS: AMP P/N 90302-1 BERG ELECTRIC P/N HT-95
10. ADD ITEM NO.12 FLUSH WITH OUTER JACKET.
11. DO NOT USE MORE THAN 8FT (2.5m) OR ETHERNET SPECIFICATION MAY BE VIOLATED IN STANDARD CONFIGURATIONS.




CAUTION: SEE OFF SHEET PARTS LIST  
K-PL-7018798-0-DBF (MK1172.FLS)

| REVISION HISTORY |               |      |         |
|------------------|---------------|------|---------|
| DATE             | ECO NUMBER    | REV. |         |
| 7-2              | 7018798-TWO01 | B    |         |
|                  | REVISION      |      | 11/2/02 |
|                  |               |      | 11/2/02 |
| 7-2              | 7018795-MK002 | C    |         |

7. Lawrence, J. 11-17-70

MILAWRENCE

|   |          |   |          |  |           |   |  |  |  |  |  |  |  |        |          |          |          |
|---|----------|---|----------|--|-----------|---|--|--|--|--|--|--|--|--------|----------|----------|----------|
|   |          | DESCRIPTION   |          | DRAWING NO.  |           | PART NO.  |  | ITEM NO.   |  |  |  |  |  |        |          |          |          |
|   |          | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114)     |          |  |           |   |  |  |  |  |  |  |  |        |          |          |          |
|   |          | INCHES<br>TOLERANCES<br><br>X = ± .1<br>XX = ± .02<br>XXX = ± .005  |          | ANGLES<br>± 9° 30'<br><br>SURFACE<br>QUALITY<br><br>✓<br><br>MICROINCHES   |           | ASSEMBLY<br>DIMENSIONAL<br>RANGE<br>(CHECK ONE)<br><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> |  | DIMENSION RANGE IN INCHES  |  |  |  |  |  |        |          |          |          |
|   |          |   |          |  |           |   |  | <table><tr><td>OVER 0</td><td>OVER 0.2</td><td>OVER 1.2</td><td>OVER 4.0</td><td>OVER 12.0</td><td>OVER 40.0</td></tr><tr><td>TO 0.2</td><td>TO 1.2</td><td>TO 4.0</td><td>TO 12.0</td><td>TO 40.0</td><td>TO 80.0</td></tr></table> |  |  |  |  |  | OVER 0 | OVER 0.2 | OVER 1.2 | OVER 4.0 |
| OVER 0  | OVER 0.2 | OVER 1.2  | OVER 4.0 | OVER 12.0  | OVER 40.0 |   |  |  |  |  |  |  |  |        |          |          |          |
| TO 0.2  | TO 1.2   | TO 4.0  | TO 12.0  | TO 40.0  | TO 80.0   |   |  |  |  |  |  |  |  |        |          |          |          |
| QUANTITY<br>& VARIATION   |          | THIRD ANGLE PROJECTION<br> |          | DATE<br>14 MAY 82<br>CHKD BY <i>[Signature]</i><br>DESGND <i>[Signature]</i><br>REVS ENG <i>[Signature]</i><br>INFO ENG <i>[Signature]</i><br>NEXT HIGHERCOC |           | TITLE<br>UNA BULKHEAD<br>CABLE ASSY   |  | digital A  |  |  |  |  |  |        |          |          |          |
| DO NOT SCALE DRAWING<br>REMOVE BURRS AND<br>BREAK SHARP CORNERS |          | MATERIAL<br>SEE PARTS LIST  |          | DATE<br>23 JUN 82  |           | DOCUMENT NUMBER<br>7018793-0-0  |  | REV<br>C   |  |  |  |  |  |        |          |          |          |
| FINISH<br>++  |          |   |          | SIZE CODE<br>DIA   |           | SCALE<br>++   |  | SHEET 1 OF 1   |  |  |  |  |  |        |          |          |          |

AUTOMATED BY PRTLST.40(50)

## P A R T S   L I S T

SHEET A1 OF A1

| LINE | ITEM | TOP DOCUMENT | PART NUMBER | MIN REV | DESCRIPTION                      | QTY | PER | VARIATION |     |
|------|------|--------------|-------------|---------|----------------------------------|-----|-----|-----------|-----|
|      |      |              |             |         |                                  | 04  | 08  | 03        | 07  |
|      |      |              |             |         | VARIATION REVISION LEVEL:        | 82  | 82  | A1        | A1  |
| 1    | 1    | SEE NOTE     | 1700347-01  |         | CABLE,RND 09COND 28AWG TWP       | 48  | 96  | 36        | 84  |
| 2    | 2    |              | 3616073-00  |         | LABEL,ID W/COPY VERTICAL         | 1   | 1   | 1         | 1   |
| 3    | 3    |              | 1210089-07  |         | CONN,P+S 01SKT 28-22AWG .0500D   | 3   | 3   | 3         | 3   |
| 4    | 4    |              | 1210089-00  |         | CONN,P+S 01SKT 32-28AWG .0500D   | 6   | 6   | 6         | 6   |
| 5    | 5    |              | 1211245-02  |         | CONN,D SUB 15POS HOOD STRAIGHT P | 1   | 1   | 1         | 1   |
| 6    | 6    |              | 1210493-58  |         | CONN,D SUB 15SKT HSG STR         | 1   | 1   | 1         | 1   |
| 7    | 7    |              | 1218489-00  |         | LATCH ASSY,SLIDE 410 LG          | 1   | 1   | 1         | 1   |
| 8    | 8    |              | 1210493-45  |         | CONN,D SUB SKT CRIMP 28-24AWG    | 10  | 10  | 10        | 10  |
| 9    | 9    |              | 1210918-25  |         | CONN,P+S 24POS(2X12).100CC HSG   | 1   | 1   | 1         | 1   |
| 10   | 10   |              | 9009140-00  |         | CONN,P+S POLARIZING PLUG FOR-    | 1   | 1   | 1         | 1   |
| 11   | 11   | SEE NOTE     | 9107252-00  |         | TUBING,SHRINK .375ID EXP         | 2   | 2   | 2         | 2   |
| 12   | 12   |              | 9007834-00  |         | TAPE,URETHAN ADHDBC .50 WDX .03  | A/R | A/R | A/R       | A/R |

13 NOTE: ITEMS 1 &amp; 11 ARE IN INCHES

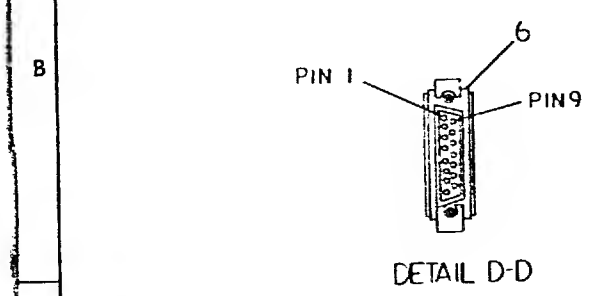
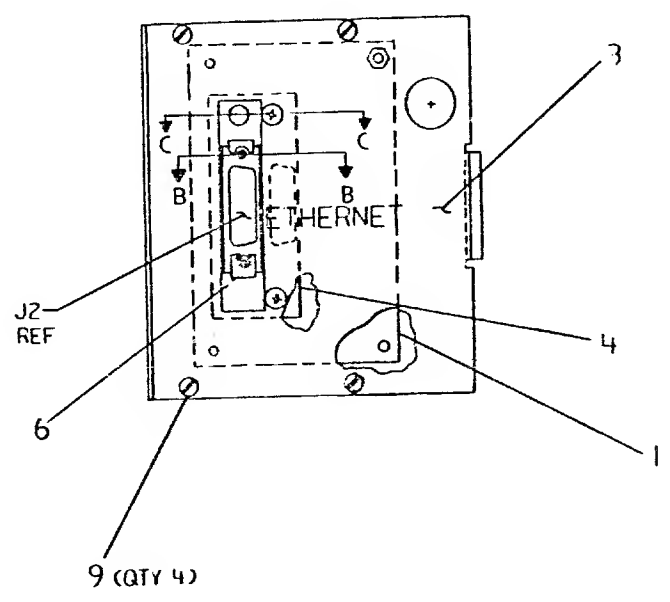
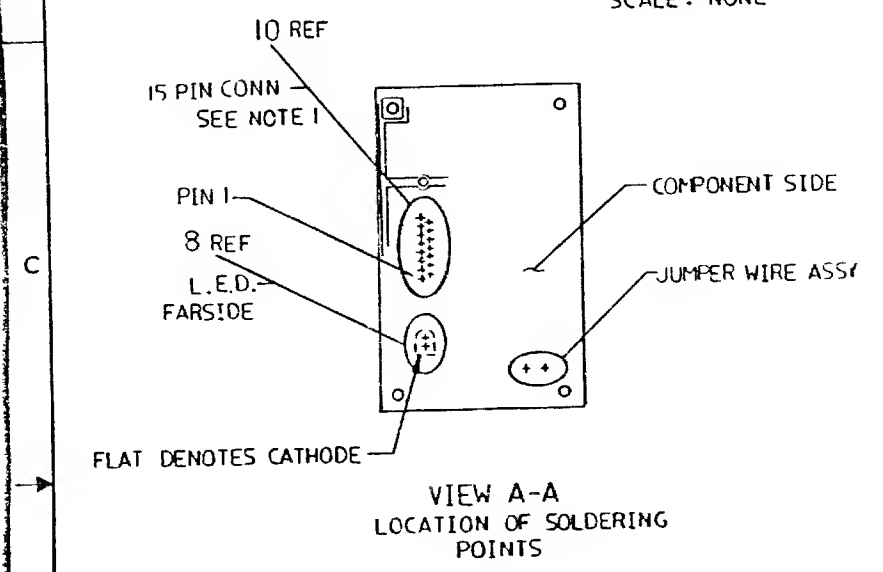
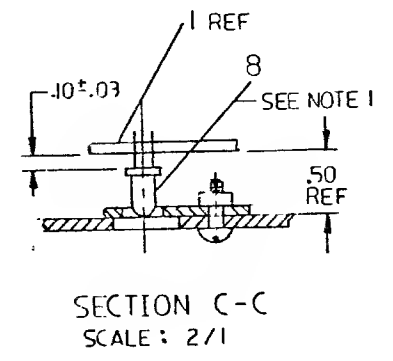
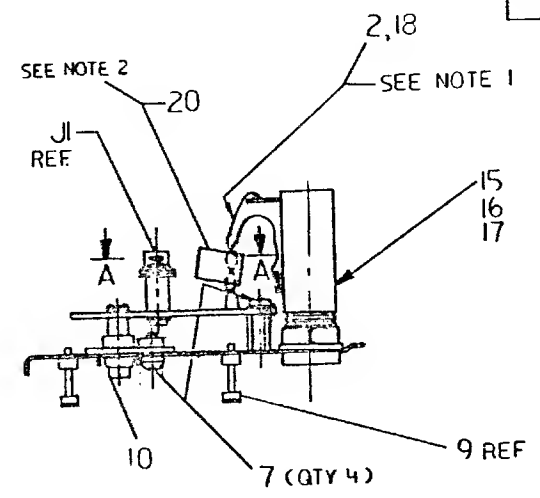
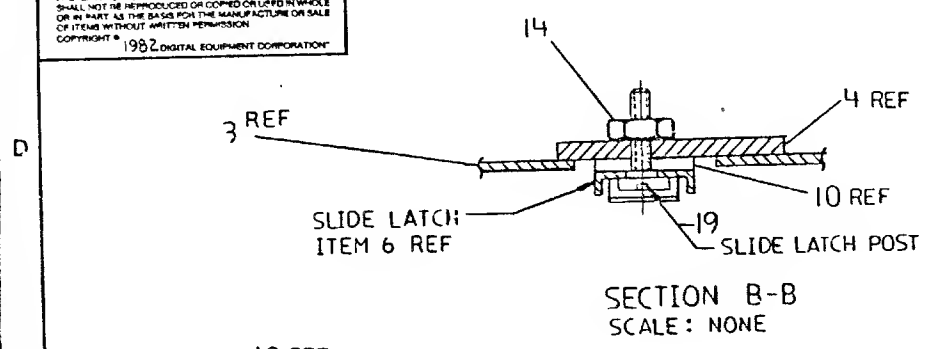
|   |               |     |                         |  |  |                    |  |  |                      |  |  |                         |  |  |
|---|---------------|-----|-------------------------|--|--|--------------------|--|--|----------------------|--|--|-------------------------|--|--|
| REVISION HISTORY  |               |     | BASIC PART NO: 7018798  |  |  | DRN: R.J.RILEY     |  |  | DATE: 16-NOV-82      |  |  | D I G I T A L           |  |  |
| ENG   | ECO NUMBER    | REV | SECTION A OF A          |  |  | CHK'D: R.J.RILEY   |  |  | DATE: 16-NOV-82      |  |  | TITLE PARTS LIST        |  |  |
| ---   | INITIAL       | A   | SECTION VARIATION INDEX |  |  | DES.ENG: R.GRAHAM  |  |  | DATE: 16-NOV-82      |  |  | DOCUMENT NUMBER         |  |  |
| RG  | 7018798-TW001 | B   | [A] 04,08,03,07         |  |  | RESP.ENG: R.GRAHAM |  |  | DATE: 16-NOV-82      |  |  | SIZE CODE NUMBER REV    |  |  |
| ML  | 7018798-MK002 | C   | [B]                     |  |  | MFG.ENG.: D.DUNCAN |  |  | DATE: 16-NOV-82      |  |  | RELEASE DATE: 30-JAN-85 |  |  |
|   |               |     | [C]                     |  |  | ASSEMBLY NUMBER:   |  |  | TOP DOCUMENT NUMBER: |  |  | FILE NAME:              |  |  |
|   |               |     | [D]                     |  |  | ID-IA-7018798-0-0  |  |  | K-DD-DEUNA-0-0       |  |  | MK1172.PLS              |  |  |
|   |               |     | [E]                     |  |  |                    |  |  |                      |  |  | EDIT #                  |  |  |
|   |               |     | [F]                     |  |  |                    |  |  |                      |  |  | 10                      |  |  |
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DAD 7018799-0-0  
REV E

| LEGEND     |                        | REV |
|------------|------------------------|-----|
| 7018799-00 | AS SHOWN               | C2  |
| 7018799-01 | USED ON DECISA OPTIONS | C2  |

- NOTES:
- VIEW A-A IS FOR LOCATION POINTS FOR ITEMS 2, 8 AND 10.
  - MARK DEC PART NO. & REV LEVEL PER DEC STD 178.



CAUTION: SEE OFF SHEET PARTS LIST  
K-PL-7018799-0-0

| DATE     | REV | ECO NUMBER    | BY         | CHKD | DATE |
|----------|-----|---------------|------------|------|------|
| 12-21-82 | B   | 7018799-0-001 | R. GRAHAM  |      |      |
| 12-21-82 | C   | 7018799-0-002 | D. GARDNER |      |      |
| 12-21-82 | D   | 7018799-0-003 | R. GRAHAM  |      |      |
| 12-21-82 | E   | 7018799-0-004 | T. HUMMEL  |      |      |
| 12-21-82 | F   | 7018799-0-005 | G. GRAHAM  |      |      |

|  |                                      |   |                           |                    |
|--|--------------------------------------|---|---------------------------|--------------------|
| DESCRIPTION  |                                      | DRAWING NO.   | PART NO.                  | ITEM NO.           |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114) |                                      |   |                           |                    |
| INCHES TOLERANCES  | HOLES ±0.007                         | APPLICABLE DIMENSION RANGE  | DIMENSION RANGE IN INCHES |                    |
| X = ±.1  | SURFACE QUALITY<br>✓                 | CHECK ONE<br><input type="checkbox"/> ±.004 <input type="checkbox"/> ±.006 <input type="checkbox"/> ±.012 <input type="checkbox"/> ±.018 <input type="checkbox"/> ±.024 <input type="checkbox"/> ±.04 | OVER 0 TO 0.2             | OVER 0.2 TO 0.5    |
| XX = ±.02  |                                      |   | OVER 0.5 TO 1.0           | OVER 1.0 TO 4.0    |
| XXX = ±.005  |                                      |   | OVER 4.0 TO 12.0          | OVER 12.0 TO 60.0  |
| QUANTITY & VARIATION   | THIRD ANGLE PROJECTION               | DATE 3 JUN 82   | TITLE                     |                    |
|  | DO NOT SCALE DRAWING                 | DATE 11/14/82   | UNA BULKHEAD ASSY         |                    |
|  | REMOVE BURRS AND BREAK SHARP CORNERS | DATE 11/14/82   | DOCUMENT NUMBER           |                    |
| MATERIAL SEE PARTS LIST  | FINISH                               | DATE 3-25-82  | SIZE CODE DAD             | NUMBER 7018799-0-0 |
|  |                                      |   | SCALE 1/1                 | SHEET 1 OF 1       |



AUTOMATED BY PRTLST.5R(55)

PARTS LIST

| AUTOMATED BY: PR12211000 |      | MIN               |             | VARIATION REVISION LEVEL: |                                  | 00 | 01 |
|--------------------------|------|-------------------|-------------|---------------------------|----------------------------------|----|----|
| LINE                     | ITEM | TOP DOCUMENT      | PART NUMBER | REV                       | DESCRIPTION                      | C2 | C2 |
|                          |      |                   |             |                           |                                  | 1  | 1  |
| 1                        | 1    | D-UA-5415552-0-0  | 5415552-00  |                           | UNA BULKHEAD                     | -  | 1  |
| 2                        | 2    | B-IA-7018810-0-0  | 7018801-00  |                           | JUMPER WIRE ASSY.                | 1  | -  |
| 3                        | 3    | D-IA-7426404-09-0 | 7426404-09  |                           | PANEL,QUAD (D-IA)                | 1  | 1  |
| 4                        | 4    | C-IA-7427299-0-0  | 7427299-01  |                           | PLATE,CONNECTOR MIG              | -  | -  |
| 5                        | 5    |                   | 1210242-01  |                           | *** THIS ITEM IS NOT USED ***    | 1  | 1  |
| 6                        | 6    |                   | 1218489-03  |                           | LATCH ASSY,SLIDE                 | 4  | -  |
| 7                        | 7    |                   | 9009984-02  |                           | SCREW,SEMS PAN PHIL 6-           | 1  | 1  |
| 8                        | 8    |                   | 1110864-00  |                           | LED 2MCD@10MA                    | 4  | -  |
| 9                        | 9    |                   | 1219534-01  |                           | SCREW, CAPTV SLOT 4-             | 1  | 1  |
| 10                       | 10   |                   | 1220350-01  |                           | CONN,D SUB 15SKI ASSY STR TIN PL | -  | -  |
| 11                       | 11   |                   | 7427750-01  |                           | *** THIS ITEM IS NOT USED ***    | -  | -  |
| 12                       | 12   |                   | 1012784-00  |                           | *** THIS ITEM IS NOT USED ***    | -  | -  |
| 13                       | 13   |                   | 9107279-11  |                           | TUBING,TEFLOH .042ID A/R A/R     | 2  | 2  |
| 14                       | 14   |                   | 9006557-00  |                           | NUT,HEX EXT TCGTH LCK&SHR 4-40   | 1  | -  |
| 15                       | 15   |                   | 1222255-02  |                           | FUSEHOLDER , 16. A 250 V HIGH    | 1  | -  |
| 16                       | 16   |                   | 1222255-03  |                           | FUSECARRIER ,1/4X1 1/4 FUSE (GRE | 1  | -  |
| 17                       | 17   |                   | 9007213-00  |                           | FUSE,SLO BLO 1-1/2 A,250V GLASS  | 1  | -  |
| 18                       | 18   | D-IA-7018810-0-0  | 7018801-01  |                           | CKT BKR JUMPER WIRE ASSY         | 2  | 2  |
| 19                       | 19   |                   | 1218489-05  |                           | LATCH ASSY,SLIDE .41 LG POS      | 1  | 1  |
| 20                       | 20   |                   | 3616073-00  |                           | LABEL,ID W/COPY VERTICAL         |    |    |

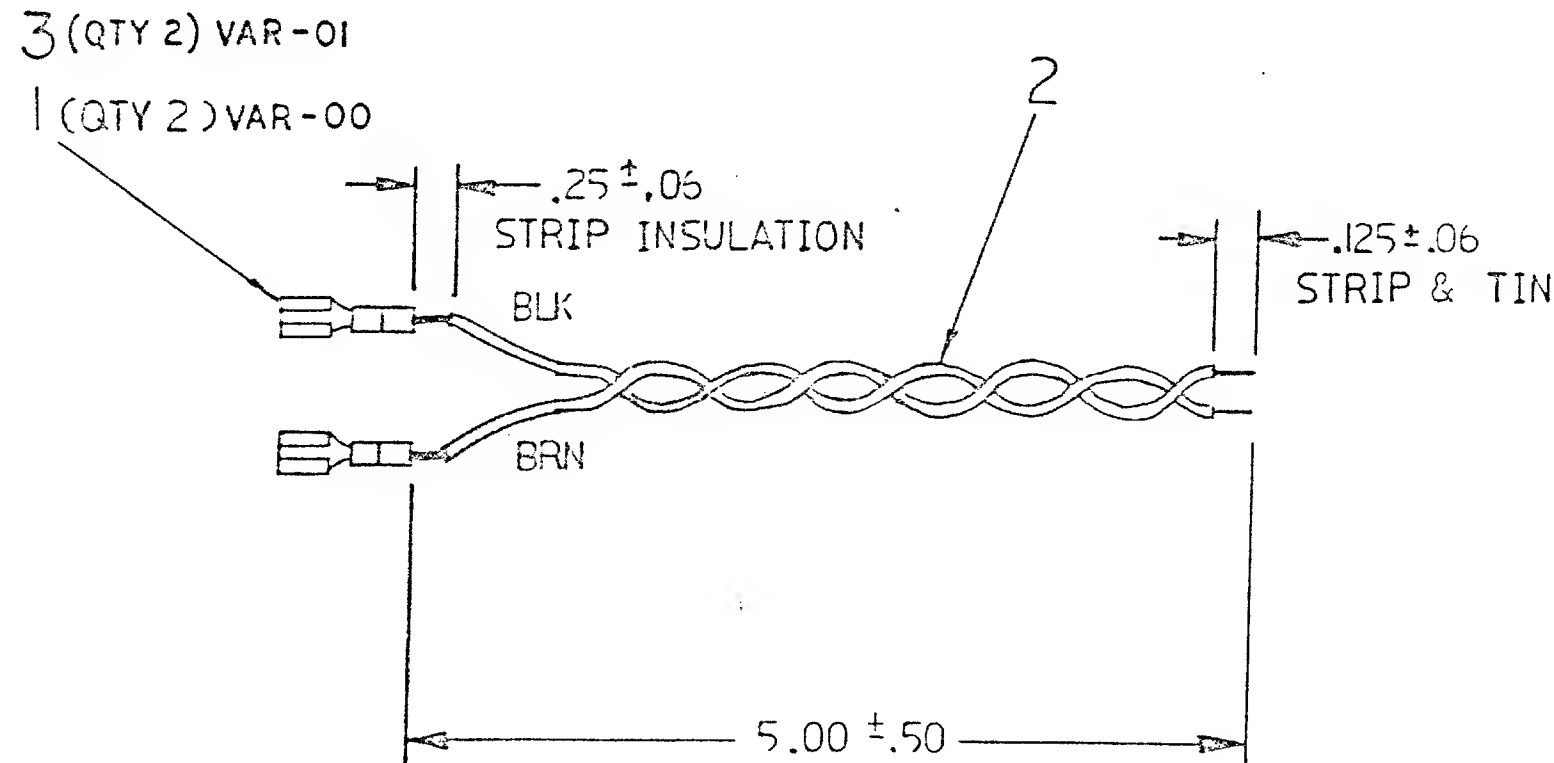
21 NOTE: IF OLD 5415552 REV IS USED ADD QTY. OF 2 CAPS. #1012784-00 (.047 MFD, 50V +80-20%)

|   |               |                        |                         |                       |                      |                         |      |             |     |
|---|---------------|------------------------|-------------------------|-----------------------|----------------------|-------------------------|------|-------------|-----|
| REVISION HISTORY  |               | BASIC PART NO: 7018799 |                         | DRN: R.J. RILEY       | DATE: 01-APR-85      | DIGITAL                 |      |             |     |
| ENG   | ECO NUMBER    | REV                    | SECTION A OF A          | CHK'D: R.J. RILEY     | DATE: 01-APR-85      | TITLE PARTS LIST        |      |             |     |
| ---   | INITIAL       | IA                     | SECTION VARIATION INDEX | DES. E.G.: R. GRAHAM  | DATE: 01-APR-85      | UNA BULKHEAD ASSY.      |      |             |     |
| PG  | 7018799-T*001 | IB                     | (A) 00,01               | RESP. ENG.: R. GRAHAM | DATE: 01-APR-85      | DOCUMENT NUMBER         |      |             |     |
| PG  | 7018799-T*002 | IC                     | (B)                     | MFG. ENG.: D. DUNCAN  | DATE: 01-APR-85      | SIZE                    | CODE | NUMBER      | REV |
| GG  | 7018799-MK003 | ID                     | (C)                     | ASSEMBLY NUMBER:      | DATE: 01-APR-85      | K                       | PL   | 7018799-0-0 | E   |
| ML  | 7018799-MK004 | IE                     | (D)                     | ID-AD-7018799-0-0     | DATE: 01-APR-85      | RELEASE DATE: 05-AUG-85 |      |             |     |
|   |               |                        | (E)                     |                       | TOP DOCUMENT NUMBER: | FILE NAME:              |      | EDIT        |     |
|   |               |                        | (F)                     |                       | B-DD-DEUNA-0-0       | MK1191.PLS              |      | 15          |     |
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| LEGEND     |     |
|------------|-----|
| PART NO.   | REV |
| 7018801-00 | AI  |
| 7018801-01 | AI  |



CAUTION: SEE OFF SHEET PARTS LIST  
K-PL-7018801-0-0

| REVISION HISTORY            |                |      |
|-----------------------------|----------------|------|
| DATE                        | ECO NUMBER     | REV. |
|                             | 7018199-14K003 | B    |
| T. Hummel 4-3-85            |                |      |
| M. LAWRENCE                 |                |      |
| WAL, G. Padmanabhan 7-22-87 |                |      |

|   |  |                    |  |                                  |  |                                      |                          |                          |                           |                            |                            |                 |  |                |  |
|---|--|--------------------|--|----------------------------------|--|--------------------------------------|--------------------------|--------------------------|---------------------------|----------------------------|----------------------------|-----------------|--|----------------|--|
|   |  | DESCRIPTION        |  | DRAWING NO.                      |  | PART NO.                             |                          | REV. NO.                 |                           |                            |                            |                 |  |                |  |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114)     |  |                    |  |                                  |  |                                      |                          |                          |                           |                            |                            |                 |  |                |  |
| INCHES<br>TOLERANCES  |  | ANGLES<br>D° 3'    |  | APPLICABLE<br>DIMENSION<br>RANGE |  | DIMENSIONS RANGE IN INCHES           |                          |                          |                           |                            |                            |                 |  |                |  |
|   |  |                    |  |                                  |  | OVER<br>0<br>TO<br>0.2               | OVER<br>0.2<br>TO<br>0.7 | OVER<br>1.2<br>TO<br>4.0 | OVER<br>4.0<br>TO<br>12.0 | OVER<br>12.0<br>TO<br>48.0 | OVER<br>48.0<br>TO<br>E.O. |                 |  |                |  |
| X = ± .1<br>XX = ± .02<br>XXX = ± .005  |  | SURFACE<br>QUALITY |  | (CHECK ONE)                      |  | ± .02<br>± .004                      |                          | ± .01<br>± .003          |                           | ± .02<br>± .012            |                            | ± .05<br>± .015 |  | ± .10<br>± .03 |  |
| QUANTITY<br>& VARIATION   |  | ✓<br>NOTED         |  |                                  |  |                                      |                          |                          |                           |                            |                            |                 |  |                |  |
| THIRD ANGLE PROJECTION<br> |  |                    |  | DATE<br>7 JUN 82                 |  | TITLE<br>CKT BKR JUMPER<br>WIRE ASSY |                          |                          |                           |                            |                            |                 |  |                |  |
| DO NOT SCALE DRAWING  |  |                    |  | DATE<br>11-10-82                 |  |                                      |                          |                          |                           |                            |                            |                 |  |                |  |
| REMOVE BURRS AND<br>BREAK SHARP CORNERS   |  |                    |  | DATE<br>11/16/82                 |  |                                      |                          |                          |                           |                            |                            |                 |  |                |  |
| MATERIAL<br>SEE PARTS LIST  |  |                    |  | DATE<br>11/16/82                 |  |                                      |                          |                          |                           |                            |                            |                 |  |                |  |
| FINISH<br>+ +   |  |                    |  | DATE<br>28-OCT-82                |  |                                      |                          |                          |                           |                            |                            |                 |  |                |  |
| D-AD-7018799-0-0  |  |                    |  |                                  |  | DOCUMENT NUMBER<br>IA 7018301-0-0 B  |                          |                          |                           |                            |                            |                 |  |                |  |
|   |  |                    |  |                                  |  | SCALE 1/1 SHEET OF 1                 |                          |                          |                           |                            |                            |                 |  |                |  |

DRB 100B

1 TW

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DRAWING DIRECTORY

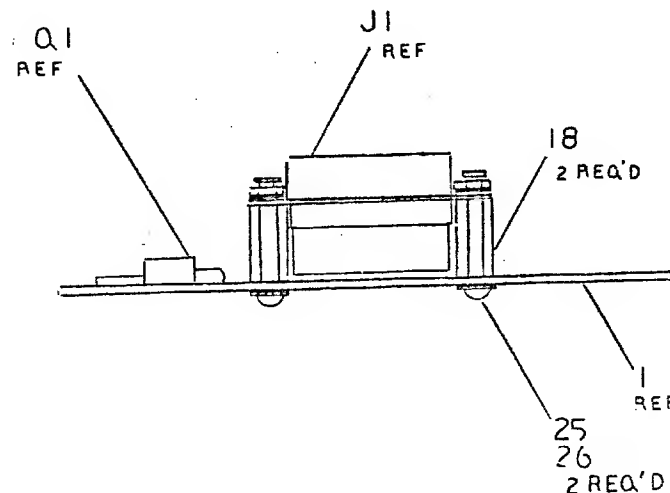
| ITEM | DRAWING NO.        | NO. OF SHTS | PART NO.   | DESCRIPTION           | TYPE | REVISIONS |    |     |     |     |  |  |  |  |  |
|------|--------------------|-------------|------------|-----------------------|------|-----------|----|-----|-----|-----|--|--|--|--|--|
|      |                    |             |            |                       |      | A1        | B1 | B2  | B2  |     |  |  |  |  |  |
| 1    |                    |             | 5415552-00 | SURGE CURRENT LIMITER |      |           |    |     |     |     |  |  |  |  |  |
| 2    | D-UA-5415552-0-C   | 1           |            | SURGE CURRENT LIMITER |      | A         | B  | C   | D   | D   |  |  |  |  |  |
| 3    | K-PL-5415552-0-DBP | 1           |            | SURGE CURRENT LIMITER |      | A         | A  | B   | C   | C   |  |  |  |  |  |
| 4    | K-PC-5415552-0-DBI | -           |            | P.C. DATA BASE        |      | A         | B  | B   | B   | B   |  |  |  |  |  |
| 5    | K-CS-5415552-0-DBS | -           |            | SUDS DATA BASE        |      | A         | B  | C   | C   | C   |  |  |  |  |  |
| 6    | K-CS-5415552-0-1   | 1           |            | SURGE CURRENT LIMITER |      | A         | B  | C   | C   | D   |  |  |  |  |  |
| 7    | K-DD-5015551-0-0   | 1           |            | DRAWING DIRECTORY     |      | -         | -  | REF | REF | REF |  |  |  |  |  |

NOTES:

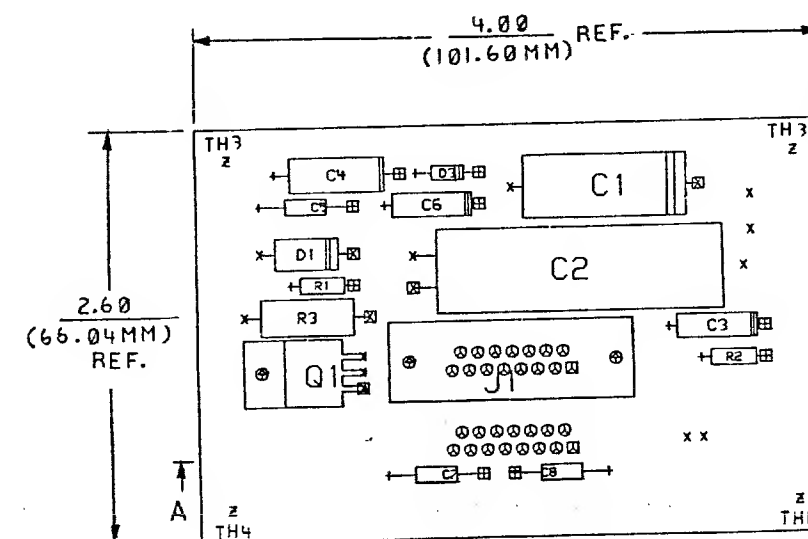
|                  |               |     |                        |            |     |   |   |   |   |   |   |                                |  |  |  |  |  |  |
|------------------|---------------|-----|------------------------|------------|-----|---|---|---|---|---|---|--------------------------------|--|--|--|--|--|--|
|                  |               |     |                        |            |     | DD<br>REV                                       | A | B | C | D | E |                                |  |  |  |  |  |  |
| REVISION HISTORY |               |     | CONT. REVISION HISTORY |            |     | MADE BY: T. WALSH<br>DATE: 01 SEP 82            |   |   |   |   |   | d i g i t a l                  |  |  |  |  |  |  |
| ENG              | ECO NUMBER    | REV | ENG                    | ECO NUMBER | REV | CHECKED BY: T. WALSH<br>DATE: 01 SEP 82         |   |   |   |   |   | TITLE DRAWING DIRECTORY        |  |  |  |  |  |  |
| CC               | 5415552-TW001 | B   |                        |            |     | DESIGN ENGINEER: M. STECKLER<br>DATE: 12 DEC 82 |   |   |   |   |   | SURGE CURRENT LIMITER          |  |  |  |  |  |  |
| ML               | 5415552-MK002 | C   |                        |            |     | RESPONSIBLE ENG: M. STECKLER<br>DATE: 12 DEC 82 |   |   |   |   |   |                                |  |  |  |  |  |  |
| ML               | 5415552-MK003 | D   |                        |            |     | PRODUCTION ENG: D. DUNCAN<br>DATE: 12 DEC 82    |   |   |   |   |   | SIZE CODE DOCUMENT NUMBER REV. |  |  |  |  |  |  |
| ML               | 5415552-MK004 | E   |                        |            |     |   |   |   |   |   |   | K DD 5415552-0-0 E             |  |  |  |  |  |  |
|                  |               |     |                        |            |     |   |   |   |   |   |   | SHEET 1 OF 1 MKO               |  |  |  |  |  |  |

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COMPONENT SIDE VIEW



VIEW A-A  
SCALE: 2/1



| CHK | DRAWN BY     | ENGINEER   | CHANGE NO  | DATE      | REV | CHK | DRAWN BY | ENGINEER | CHANGE NO | DATE | REV |
|-----|--------------|------------|------------|-----------|-----|-----|----------|----------|-----------|------|-----|
|     | A. Krawiecki | C. Carroll | 541552-MK  | 30-JAN-83 | C   |     |          |          |           |      |     |
|     |              |            | 541552-MK3 | 31-JAN-83 | D   |     |          |          |           |      |     |
|     |              |            |            |           |     |     |          |          |           |      |     |
|     |              |            |            |           |     |     |          |          |           |      |     |
|     |              |            |            |           |     |     |          |          |           |      |     |
|     |              |            |            |           |     |     |          |          |           |      |     |
|     |              |            |            |           |     |     |          |          |           |      |     |
|     |              |            |            |           |     |     |          |          |           |      |     |
|     |              |            |            |           |     |     |          |          |           |      |     |
|     |              |            |            |           |     |     |          |          |           |      |     |

NOTES:  
1-LOCKING POSTS ARE ASSEMBLED USING TWO  
4-2) FLAT WASHERS, DO NOT USE LOCK WASHERS.

STEP E → Y AXIS 2.60 STEP 3 TIMES  
REPEAT → X AXIS 4.00 STEP 3 TIMES

|           |       |
|-----------|-------|
| ETCH REV. | BI-P2 |
|-----------|-------|

| SIGNATURES                      | DATE    | digital | TITLE | NUMBER | REV |
|---------------------------------|---------|---------|-------|--------|-----|
| DRN. A. Krawiecki               | 1/30/83 |         |       |        |     |
| CHK. O. A. Krawiecki            | 2/2/83  |         |       |        |     |
| MECH. ENG. J. Gull              | 2/2/83  |         |       |        |     |
| PROJ. ENG. M. J. Gull           | 2/2/83  |         |       |        |     |
| PROD. J. Lott                   | 2/2/83  |         |       |        |     |
| SCALE 2/1                       |         |         |       |        |     |
| SHT. 1 OF 1                     |         |         |       |        |     |
| NEXT HIGHER ASSY. K-00-541552-0 |         |         |       |        |     |

MKO 1 WO# 302327

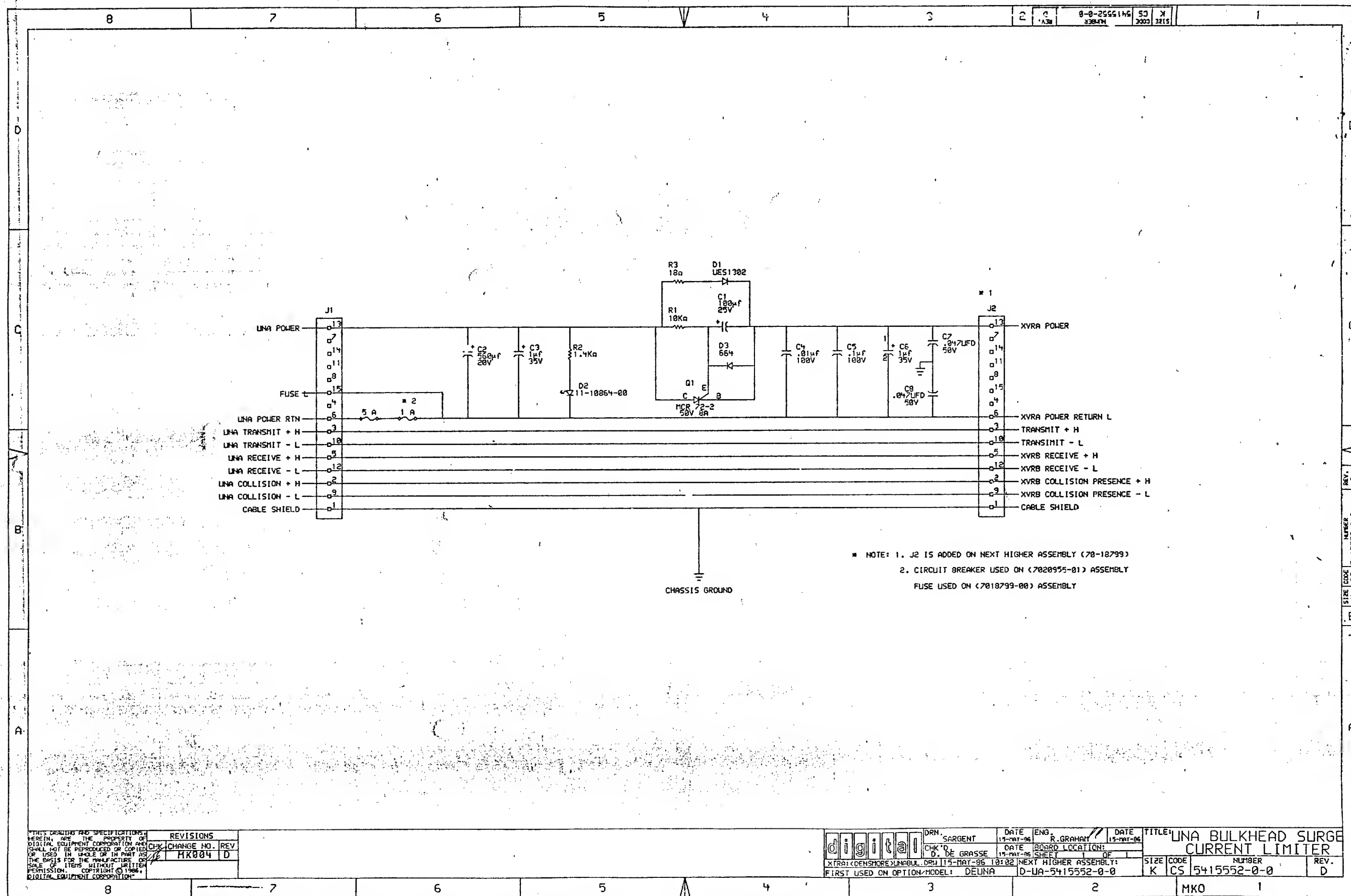
AUTOMATED BY VAXKPL (V1.0)

## P A R T S   L I S T

SHEET A1   OF A1

| LINE | ITEM | TOP DOCUMENT     | PART NUMBER | MIN<br>REV | DESCRIPTION                      | QTY PER VAR/REV<br>00<br>82 | REFERENCE DESIGNATORS |
|------|------|------------------|-------------|------------|----------------------------------|-----------------------------|-----------------------|
| 1    | 1    | D-MD-5015551-0-0 | 50-15551-00 |            | DRILL AND ETCH                   | 1                           |                       |
| 2    | 2    |                  | 10-01776-00 |            | 1 MFD 35V 10% S.TANT             | 2                           | C3,C6                 |
| 3    | 3    |                  | 10-02781-00 |            | 100 MFD 25V +75-10% AL EL        | 1                           | C1                    |
| 4    | 4    |                  | 10-05784-00 |            | .01 MFD 100V 200V 10% MYLR       | 1                           | C4                    |
| 5    | 5    |                  | 10-13466-22 |            | .1 MFD 50V +80-20% Z5U CER       | 1                           | C5                    |
| 6    | 6    |                  | 10-18584-01 |            | 560 MFD 20V+100-20% AL EL        | 1                           | C2                    |
| 7    | 7    |                  | 11-00114-00 |            | PIV= 25 IO=135 MA                | 1                           | D3                    |
| 8    | 8    |                  | 11-10864-00 |            | LED 2MCD@10MA                    | 1                           | D2                    |
| 9    | 9    |                  | 11-14602-00 |            | RECT,ULTRA FAST PIV= 100 IO= 4.0 | 1                           | D1                    |
| 10   | 10   |                  | 13-03312-00 |            | 10.0 K .25 W 1.0 % RN55D-F10     | 1                           | R1                    |
| 11   | 11   |                  | 13-13589-00 |            | 1.40 K .25 W 1.0 % RN55D-F10     | 1                           | R2                    |
| 12   | 12   |                  | 13-19255-10 |            | 18.0 1.0 W 5.0 % M.OXIDE         | 1                           | R3                    |
| 13   | 13   | BLANK            |             |            | *** THIS ITEM IS NOT USED ***    | -                           |                       |
| 14   | 14   | BLANK            |             |            | *** THIS ITEM IS NOT USED ***    | -                           |                       |
| 15   | 15   |                  | 12-21634-01 |            | CONN'D SUB 15PIN ASSY STRAIGHT P | 1                           | J1                    |
| 16   | 16   |                  | 15-20353-01 |            | SCR PIV= 50 IO= 8.00A            | 1                           | Q1                    |
| 17   | 17   | BLANK            |             |            | *** THIS ITEM IS NOT USED ***    | -                           |                       |
| 18   | 18   | BLANK            |             |            | *** THIS ITEM IS NOT USED ***    | -                           |                       |
| 19   | 19   | BLANK            |             |            | *** THIS ITEM IS NOT USED ***    | -                           |                       |
| 20   | 20   | BLANK            |             |            | *** THIS ITEM IS NOT USED ***    | -                           |                       |
| 21   | 21   | BLANK            |             |            | *** THIS ITEM IS NOT USED ***    | -                           |                       |
| 22   | 22   | BLANK            |             |            | *** THIS ITEM IS NOT USED ***    | -                           |                       |
| 23   | 23   | BLANK            |             |            | *** THIS ITEM IS NOT USED ***    | -                           |                       |
| 24   | 24   |                  | 10-12784-00 |            | .047 MFD 50V +80-20% CER         | 2                           | C7,C8                 |
| 25   | 25   |                  | 90-00037-03 |            | WASHER,LOCK INTERNAL STEEL       | 2                           |                       |
| 26   | 26   |                  | 90-08032-01 |            | SCREW,MACH PAN PHIL 4-           | 2                           |                       |

|   |               |                   |                         |                      |                       |                          |      |
|---|---------------|-------------------|-------------------------|----------------------|-----------------------|--------------------------|------|
| REVISION HISTORY  |               | KPL MODULE FORMAT |                         | SECTION A OF A       | DRN: P. GROSSE        | D I G I T A L            |      |
| ENG   | ECO NUMBER    | REV               | SECTION/VARIATION INDEX |                      | DATE: 16-JUN-82       |                          |      |
|   | INITIAL       | A                 | [A]                     | 00                   | CHK'D: F. GAROFALO    | TITLE PARTS LIST         |      |
| ML  | 5415552-MK002 | B                 | [B]                     |                      | DATE: 16-JUN-82       | SURGE CURRENT LIMITER    |      |
| ML  | 5415552-MK003 | C                 | [C]                     |                      | DES.ENG: R. GRAHAM    |                          |      |
|   |               |                   | [D]                     |                      | DATE: 16-JUN-82       | DOCUMENT NUMBER          |      |
|   |               |                   | [E]                     |                      | 30 LAMT6              | SIZE                     | CODE |
|   |               |                   | [F]                     |                      | RESP.ENG: M. LAWRENCE | NUMBER                   | REV  |
|   |               |                   | [G]                     |                      | DATE: 25-MAR-85       | K                        | PL   |
|   |               |                   | [H]                     |                      | 30 LAMT6              | 5415552-0-0              | C    |
|   |               |                   | [I]                     |                      | MFG.ENG: W. BROOKE    | RELEASE DATE: 28-JAN-86  |      |
|   |               |                   | [J]                     |                      | DATE: 25-MAR-85       | RELEASE STATUS: RELEASED |      |
|   |               |                   | [K]                     |                      |                       |                          |      |
|   |               |                   | [L]                     |                      |                       |                          |      |
|   |               |                   | [M]                     |                      |                       |                          |      |
|   |               |                   | [N]                     |                      |                       |                          |      |
|   |               |                   | [O]                     |                      |                       |                          |      |
|   |               |                   | [P]                     |                      |                       |                          |      |
|   |               |                   | [Q]                     |                      |                       |                          |      |
|   |               |                   | [R]                     |                      |                       |                          |      |
|   |               |                   | [S]                     |                      |                       |                          |      |
|   |               |                   | [T]                     |                      |                       |                          |      |
|   |               |                   | [U]                     |                      |                       |                          |      |
|   |               |                   | [V]                     |                      |                       |                          |      |
|   |               |                   | [W]                     |                      |                       |                          |      |
|   |               |                   | [X]                     |                      |                       |                          |      |
|   |               |                   | [Y]                     |                      |                       |                          |      |
| BASIC PART NUMBER:  |               | ASSEMBLY NUMBER:  |                         | TOP DOCUMENT NUMBER: |                       | FILE NAME:               |      |
| 5415552   |               | D-UA-5415552-0-0  |                         | K-DD-5415552-0       |                       | MK1277.PLS               |      |
|   |               |                   |                         |                      |                       | EDIT #                   |      |
|   |               |                   |                         |                      |                       | 3                        |      |
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NOTE: 1. J2 IS ADDED ON NEXT HIGHER ASSEMBLY (70-18799)  
2. CIRCUIT BREAKER USED ON (7020955-01) ASSEMBLY  
FUSE USED ON (7018799-00) ASSEMBLY

|  |  |   |  |   |  |  |  |   |  |
|--|--|---|--|---|--|--|--|---|--|
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|--|--|---|--|---|--|--|--|---|--|

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|--------------------|----------------------------|
| B-DD-M8743-BA      | MS11-P MEMORY (M8743)      |
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| D-UA-M8743-BA-0    | MS11-P MEMORY              |
| D-EC-5015117-BA-0  | ETCH CUT DRAWING           |
| D-CS-M8743-BA-MS01 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS02 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS03 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS04 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS05 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS06 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS07 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS08 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS09 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS10 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS11 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS12 | MS11-P MEMORY              |
| D-CS-M8743-BA-MS13 | MS11-P MEMORY              |
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| D-BD-MS11-P-DBU    | BLOCK DIAGRAM (MS11-P)     |
| D-TD-MS11-P-DBU    | TIMING DIAGRAM (MS11-P)    |
| E-FD-MS11-P-3      | FLOW DIAGRAM (MS11-P)      |

[illegible]

MS11-P  
**Field Maintenance  
Print Set**

**Digital Equipment Corporation**  
MP01477

| REVISIONS |            | REV. | A       | USED ON OPTION/MODEL |  | DRN.            | DATE       | TITLE: MS11-P MEMORY |            |                    |           |  |  |  |  |  |  |
|-----------|------------|------|---------|----------------------|--|-----------------|------------|----------------------|------------|--------------------|-----------|--|--|--|--|--|--|
| CHG. NO.  | ORIGINATED | DATE | 9/28/82 | 11/44                |  | P. BOSSMAN      | 13 AUG 82  | SIZE<br>B            | CODE<br>TC | NUMBER<br>MS11-P-1 | REV.<br>A |  |  |  |  |  |  |
|           |            |      |         | 11/24                |  | CHK'D           | DATE       |                      |            |                    |           |  |  |  |  |  |  |
|           |            |      |         |                      |  | P. Boserman     | 13 AUG 82  |                      |            |                    |           |  |  |  |  |  |  |
|           |            |      |         |                      |  | PROJ. ENG.      | DATE       |                      |            |                    |           |  |  |  |  |  |  |
|           |            |      |         |                      |  | James H. Gmelin | 24 Sept 82 |                      |            |                    |           |  |  |  |  |  |  |
|           |            |      |         |                      |  | FIELD SERV.     | DATE       |                      |            |                    |           |  |  |  |  |  |  |
|           |            |      |         | SHEET 1 OF 1         |  | Serge Martel    | 24 Sept 82 | DIST.                |            |                    |           |  |  |  |  |  |  |

| DRAWING NO.        | NO.<br>OF<br>SHTS. | PART NO.   | DESCRIPTION                   | REVISIONS |   |   |   |    |   |    |   |   |   |   |   |   |   |   |   |   |   |  |  |
|--------------------|--------------------|------------|-------------------------------|-----------|---|---|---|----|---|----|---|---|---|---|---|---|---|---|---|---|---|--|--|
|                    |                    |            |                               | A         | B | C | D | E  | F | G  | H | I | J | K | L | M | N | O | P | Q | R |  |  |
|                    |                    | M8743-BA   | MS11-P MEMORY                 | A         | B | C | D | E  | F | G  | H | I | J | K | L | M | N | O | P | Q | R |  |  |
| D-UA-M8743-BA-0    | 2                  |            | MS11-P MEMORY                 | A         | B | C | D | E  | F | G  | H | I | J | K | L | M | N | O | P | Q | R |  |  |
|                    |                    |            |                               |           |   |   |   |    |   |    |   |   |   |   |   |   |   |   |   |   |   |  |  |
|                    |                    | 5015117-00 | ETCHED BOARD                  | C         | C | C | D | C  | D | C  | D |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS01 | 1                  |            | MS11-P MEMORY                 | A         | B | B | C | C  | C | C  |   |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS02 | 1                  |            | MS11-P MEMORY                 | A         | A | A | B | B  | B | B  |   |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS03 | 1                  |            | MS11-P MEMORY                 | A         | A | A | A | A  | A | A  |   |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS04 | 1                  |            | MS11-P MEMORY                 | A         | A | A | B | B  | B | B  |   |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS05 | 1                  |            | MS11-P MEMORY                 | A         | A | B | C | B  | D | B  | D |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS06 | 1                  |            | MS11-P MEMORY                 | A         | A | A | A | B  | B | B  | B |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS07 | 1                  |            | MS11-P MEMORY                 | A         | A | A | B | B  | B | B  | B |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS08 | 1                  |            | MS11-P MEMORY                 | A         | A | A | B | C  | C | D  | D |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS09 | 1                  |            | MS11-P MEMORY                 | A         | A | A | A | A  | A | A  | A |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS10 | 1                  |            | MS11-P MEMORY                 | A         | A | A | A | A  | A | A  | A |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS11 | 1                  |            | MS11-P MEMORY                 | A         | A | A | A | A  | A | A  | A |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS12 | 1                  |            | MS11-P MEMORY                 | A         | A | A | A | A  | A | A  | A |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-MS13 | 1                  |            | MS11-P MEMORY                 | A         | A | B | C | C  | C | C  | C |   |   |   |   |   |   |   |   |   |   |  |  |
| K-PC-M8743-BA-DBG  | -                  |            | P.C. DESIGN DATA BASE         | A         | A | A | B | A  | B | A  | B |   |   |   |   |   |   |   |   |   |   |  |  |
| K-PL-M8743-BA-DBP  | 4                  |            | PARTS LIST DATA BASE (Z2712A) | A         | A | A | B | -  | C | -  | C |   |   |   |   |   |   |   |   |   |   |  |  |
| K-CS-M8743-BA-DBS  | -                  |            | SCHEMATIC DATA BASE (SUDS)    | A         | B | C | D | E  | F | H  | J |   |   |   |   |   |   |   |   |   |   |  |  |
|                    |                    |            |                               |           |   |   |   |    |   |    |   |   |   |   |   |   |   |   |   |   |   |  |  |
| B-DD-5015117-0     | 1                  |            | DRAWING DIRECTORY             | -         | - | - | A | B  | C | D  | D |   |   |   |   |   |   |   |   |   |   |  |  |
| C-UA-M8743-BA-0    | 2                  |            | MS11-P MEMORY                 | -         | - | - | - | C1 | - | C2 | - |   |   |   |   |   |   |   |   |   |   |  |  |
| B-PL-M8743-BA-0    | 4                  |            | PARTS LIST                    | -         | - | - | - | A1 | - | A1 | - |   |   |   |   |   |   |   |   |   |   |  |  |

NOTES:

1.

Revision codes for Drawing K-CS M8743-BA-MS05 and part 5015117-0 are purposely out of sequence, so that their revision codes correspond to the module revision at the top of the column.

2.

"-" in revision code means: "This line item does not describe this module revision."

REVISIONS

DATE

4/82

ORIG.

SH001

CHG NO.

1

REV.

A

DATE

12/82

ORIG.

SH002

CHG NO.

2

REV.

B

DATE

4/83

ORIG.

SH002

CHG NO.

2

REV.

C

DATE

5/83

ORIG.

SH003

CHG NO.

3

REV.

D

DATE

11/83

ORIG.

SH004

CHG NO.

4

REV.

E

DATE

2/84

ORIG.

SH005

CHG NO.

5

REV.

F

DATE

5/84

ORIG.

SH006

CHG NO.

6

REV.

G

DATE

7/84

ORIG.

SH007

CHG NO.

7

REV.

H

USED ON OPTION/MODEL

11/44

11/24

DRN.

CHK'D

ENG.

PROD.

13 AUG 82

13 JAN 83

28 JUN 83

10 SEP 83

TITLE

MS11-P MEMORY

SIZE

B

CODE

DD

NUMBER

M8743-BA

REV.

J

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digital

SHO



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## P A R T S L I S T

SHEET A1 OF A4

| LINE ITEM | TOP DOCUMENT | PART NUMBER        | MIN REV DESCRIPTION            | QTY PER VARIATION | REFERENCE DESIGNATOR |
|-----------|--------------|--------------------|--------------------------------|-------------------|----------------------|
|           |              |                    | VARIATION REVISION LEVEL:      | BC BF BH BB E2    |                      |
| 1         | 1            | B-DD-M8743-BA      | DWG DIRECTORY                  | REF REF REF REF   |                      |
| 2         | 2            | D-UA-M8743-BA-0    | UNIT ASSY                      | REF REF REF REF   |                      |
| 3         | 3            | D-MD-5015117-0-0   | CIRCUIT DRILL & ETCH           | REF REF REF REF   |                      |
| 4         | 4            | D-EC-5015117-BA-0  | ETCH CUT DWG                   | REF REF REF REF   |                      |
| 5         | 5            | K-CS-M8743-BA-MS01 | CIRCUIT SCHEMATIC              | REF REF REF REF   |                      |
| 6         | 6            | 1105275-00         | PIV= 60 IO=300 MA -15NS        | 1 1 1 1           | D1                   |
| 7         | 7            | 5015117-00         | DRILL AND ETCH BRD.            | 1 1 1 1           |                      |
| 8         | 8            | 1005306-00         | 6.8MFD 35V 10% S.TANT          | 1 1 1 1           | C1                   |
| 9         | 9            | 1012084-03         | 150 MFD 15V +75-10% AL EL      | 2 2 2 2           | C5,C6                |
| 10        | 10           | 1018200-00         | 220.0 MMF 50V 1% CER           | 2 2 2 2           | C2,C3                |
| 11        | 11           | 1014265-02         | .33 MFD 50V +80-20% CER        | 142 142 142 142   | C4,C7-C147           |
| 12        | 12           | 1117373-00         | LED ASSY GREEN                 | 1 1 1 1           | D3                   |
| 13        | 13           | 1117373-01         | LED ASSY RED                   | 1 1 1 1           | D2                   |
| 14        | 14           | 1211164-00         | SW,DIP 4POS/1PST 5VDC100MA F   | 1 1 1 1           | E28                  |
| 15        | 15           | 1211164-04         | SW,DIP 08POS/1PST 5VDC100MA F  | 1 1 1 1           | E38                  |
| 16        | 16           | 1216988-02         | HANDLE,MODULE,HEX TWO EJECTORS | 1 1 1 1           |                      |
| 17        | 17           | 1300229-00         | 100.0 .25 W 5.0 % CF           | 2 2 2 2           | R5,R22               |
| 18        | 18           | 1300316-00         | 470.0 .25 W 5.0 % CF           | 2 2 2 2           | R3,R4                |
| 19        | 19           | 1300447-00         | 4.70 K .25 W 5.0 % CF          | 3 3 3 3           | R11,R12,R18          |
| 20        | 20           | 1301322-00         | 180.0 .25 W 5.0 % CF           | 1 1 1 1           | R19                  |
| 21        | 21           | 1301808-00         | 22.0 K .25 W 5.0 % CF          | 1 1 1 1           | R1                   |
| 22        | 22           | 1302124-00         | 18.0 .25 W 5.0 % CF            | 1 1 1 1           | R2                   |
| 23        | 23           | 1302128-00         | 17.80 .50 W 1.0 % RN60E-F 2    | 1 1 1 1           | R16                  |
| 24        | 24           | 1302858-00         | 100.0 .25 W 1.0 % RN55D-F10    | 1 1 1 1           | R7                   |
| 25        | 25           | 1303064-00         | 75.0 .25 W 1.0 % RN55D-F10     | 1 1 1 1           | R6                   |
| 26        | 26           | 1304858-00         | 348.0 .25 W 1.0 % RN55D-F10    | 1 1 1 1           | R8                   |
| 27        | 27           | 1305123-00         | *** THIS ITEM IS NOT USED ***  | - - - -           |                      |
| 28        | 28           | 1311522-00         | 200.0 .25 W 5.0 % CF           | 1 1 1 1           | R13                  |
| 29        | 29           | 1316395-00         | R NETWORK 9-4.7K 2.0 % 10PIN   | 5 5 5 5           | R14,R15,R23,R25,R26  |
| 30        | 30           | 1316395-02         | R NETWORK 9-1.0K 2.0 % 10PIN   | 2 2 2 2           | R17,R24              |

| REVISION HISTORY |                |     | BASIC PART NO: M8743    |  | DRN: J. RICHARD          |  | DATE: 10-FEB-82      |  | D I G I T A L        |  |
|------------------|----------------|-----|-------------------------|--|--------------------------|--|----------------------|--|----------------------|--|
| ENG              | ECO NUMBER     | REV | SECTION A OF A          |  | CHK'D: P. BOSSMAN        |  | DATE: 17-FEB-82      |  | TITLE PARTS LIST     |  |
| IJJ              | INITIAL        | IA  | SECTION VARIATION INDEX |  | DES.ENG: J. JANETOS      |  | DATE: 17-FEB-82      |  | DOCUMENT NUMBER      |  |
| IJSL             | M8743-SH003    | IB  | [A] BC,BF,BH,BB         |  | RESP.ENG.: J. LAVRANCHUK |  | DATE: 17-FEB-82      |  | SIZE CODE NUMBER REV |  |
| IJ.L             | M8743-BA-SH005 | IC  | [B]                     |  | IMFG.ENG.: R. HILL       |  | DATE: 17-FEB-82      |  | K PL M8743-BA-DBP C  |  |
|                  |                |     | [C]                     |  | ASSEMBLY NUMBER:         |  | TOP DOCUMENT NUMBER: |  | FILE NAME:           |  |
|                  |                |     | [D]                     |  | ID-UA-M8743-BA-0         |  | #B-DD-M8743-BA       |  | Z2712C.PLS           |  |
|                  |                |     | [E]                     |  |                          |  |                      |  | EDIT #               |  |
|                  |                |     | [F]                     |  |                          |  |                      |  | 7                    |  |
|                  |                |     | [G]                     |  |                          |  |                      |  |                      |  |
|                  |                |     | [H]                     |  |                          |  |                      |  |                      |  |
|                  |                |     | [I]                     |  |                          |  |                      |  |                      |  |
|                  |                |     | [J]                     |  |                          |  |                      |  |                      |  |
|                  |                |     | [K]                     |  |                          |  |                      |  |                      |  |
|                  |                |     | [L]                     |  |                          |  |                      |  |                      |  |
|                  |                |     | [M]                     |  |                          |  |                      |  |                      |  |
|                  |                |     | [N]                     |  |                          |  |                      |  |                      |  |

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SHR

AUTOMATED BY PRTLST-3P(44)

## P A R T S   L I S T

SHEET A2 OF A4

| LINE                      | ITEM | TOP DOCUMENT | PART NUMBER | MIN<br>REV | DESCRIPTION                      | QTY PER VARIATION |    |    |          | REFERENCE DESIGNATOR  |
|---------------------------|------|--------------|-------------|------------|----------------------------------|-------------------|----|----|----------|---|
|                           |      |              |             |            |                                  | BC                | BF | BH | BB<br>E2 |   |
| VARIATION REVISION LEVEL: |      |              |             |            |                                  |                   |    |    |          |   |
| 31                        | 31   |              | 1317494-00  |            | 22.10 K .25 W 1.0 % RN55D-F10    | 2                 | 2  | 2  | 2        | R20,R21   |
| 32                        | 32   |              | 1505321-00  |            | DEC4258 PNP 200MW SI 12 30 M     | 2                 | 2  | 2  | 2        | Q1,Q2   |
| 33                        | 33   |              | 1616653-01  |            | DELAY= 100NS,10TAPS WITH TTLBU   | 1                 | 1  | 1  | 1        | E10   |
| 34                        | 34   |              | 1909705-00  |            | DEC 8881 NAND GATE-QUAD 2IN 0    | 1                 | 1  | 1  | 1        | E27   |
| 35                        | 35   |              | 1910534-00  |            | 74S04 INVERTER GATE-HEX 1I       | 1                 | 1  | 1  | 1        | E12   |
| 36                        | 36   |              | 1910536-00  |            | 74S10 NAND GATE-TRIPLE 3IN       | 1                 | 1  | 1  | 1        | E5  |
| 37                        | 37   |              | 1910540-00  |            | 74S22 NAND GATE-DUAL 4INPU       | 1                 | 1  | 1  | 1        | E3  |
| 38                        | 38   |              | 1910542-00  |            | 74S64 A-O-I GATE 4-2-3-2         | 2                 | 2  | 2  | 2        | E9,E17  |
| 39                        | 39   |              | 1910544-00  |            | 74S74 FF-D DUAL,EDGE TRIGG       | 1                 | 1  | 1  | 1        | E6  |
| 40                        | 40   |              | 1910546-00  |            | 74S140 NAND GATE-DUAL 4INPU      | 1                 | 1  | 1  | 1        | E4  |
| 41                        | 41   |              | 1910547-00  |            | 74S153 MUX 1 OF 4 (DUAL)         | 4                 | 4  | 4  | 4        | E49,E50,E55,E56   |
| 42                        | 42   |              | 1910549-00  |            | 74S158 MUX 1 OF 2 (QUAD)         | 1                 | 1  | 1  | 1        | E45   |
| 43                        | 43   |              | 1910550-00  |            | 74S174 FF-D HEX                  | 1                 | 1  | 1  | 1        | E40   |
| 44                        | 44   |              | 1911469-00  | DEC        | 8640 RECEIVER,BUS,QUAD,U         | 2                 | 2  | 2  | 2        | E1,E54  |
| 45                        | 45   |              | 1911579-00  |            | 8641 TRANSCEIVER,BUS,QUA         | 4                 | 4  | 4  | 4        | E7,E13,E18,E22  |
| 46                        | 46   |              | 1911944-00  |            | 555CN TIMER,FUNCT.BLOCK          | 1                 | 1  | 1  | 1        | E47   |
| 47                        | 47   |              | 1911983-00  |            | 74S133 NAND GATE-POSITIVE 1      | 1                 | 1  | 1  | 1        | E37   |
| 48                        | 48   |              | 1912388-00  |            | 74S02 NOR GATE-QUAD 2IN,PO       | 1                 | 1  | 1  | 1        | E2  |
| 49                        | 49   |              | 1912799-00  |            | LS00 NAND-GATE-QUAD 2IN,P        | 1                 | 1  | 1  | 1        | E35   |
| 50                        | 50   |              | 1912803-00  |            | LS04 INVERTER GATE,HEX           | 1                 | 1  | 1  | 1        | E11   |
| 51                        | 51   |              | 1912820-00  |            | LS51 A-O-I GATE 2-WIDE 2I        | 1                 | 1  | 1  | 1        | E32   |
| 52                        | 52   |              | 1912824-00  |            | LS74 FF-D DUAL,EDGE TRIGG        | 1                 | 1  | 1  | 1        | E30   |
| 53                        | 53   |              | 1912828-00  |            | LS85 COMPARATOR,4BIT MAGN        | 1                 | 1  | 1  | 1        | E31   |
| 54                        | 54   |              | 1912834-00  |            | LS112 FF-JK,DUAL,EDGE TRIG       | 1                 | 1  | 1  | 1        | E8  |
| 55                        | 55   |              | 1913340-00  |            | 74S32 OR GATE-QUAD 2IN           | 1                 | 1  | 1  | 1        | E26   |
| 56                        | 56   |              | 1913670-00  |            | 74S373 LATCH,8BIT TRANS TRI      | 3                 | 3  | 3  | 3        | E14,E16,E19   |
| 57                        | 57   |              | 1913777-00  |            | LS240 DRIVER,LINE,OCTAL,T        | 1                 | 1  | 1  | 1        | E43   |
| 58                        | 58   |              | 1913887-00  |            | 74S258 MUX 1 OF 2(QUAD)TRI       | 1                 | 1  | 1  | 1        | E21   |
| 59                        | 59   |              | 1914451-00  |            | LS393 COUNTER,BINARY,4BIT        | 2                 | 2  | 2  | 2        | E51,E57   |
| 60                        | 60   |              | 1915219-00  |            | LS373 FF-D OCTAL-TRANSPARE       | 2                 | 2  | 2  | 2        | E44,E46   |
| 61                        | 61   |              | 1918822-00  |            | 2960 ERROR DETECTOR/CORRE        | 1                 | 1  | 1  | 1        | E15   |
| 62                        | 62   |              | 1919004-00  | DC         | 750 REGISTER,ADDRESS             | 1                 | 1  | 1  | 1        | E24   |
| 63                        | 63   |              | 1919015-00  | DC         | 021 BUS TRANSCEIVER,20PI         | 3                 | 3  | 3  | 3        | E36,E42,E48   |
| 64                        | 64   |              | 1919095-00  |            | 2966PC DYNAMIC MEMORY ORIV       | 2                 | 2  | 2  | 2        | E61,E64   |
| 65                        | 65   |              | 2118467-01  |            | 8264-20 RAM 64K X1,200NS 1       | 176               | -  | -  | -        | E100-E107,E110-E117,E120-E127,<br>CONT E130-E137,E140-E147,E150-E157,<br>CONT E160-E167,E170-E177,E180-E187,<br>CONT E190-E197,E200-E207,E210-E217,<br>CONT E220-E227,E230-E237,E240-E247,<br>CONT E250-E257,E260-E267,E270-E277,<br>CONT E280-E287,E290-E297,E300-E307,<br>CONT E310-E317<br>E59,E60,E62,E63,E65 |
| 66                        | 66   |              | 1919635-01  |            | 2965 DRIVER,DYNAMIC RAM          | 5                 | 5  | 5  | 5        |   |
| 67                        | 67   |              | 9000024-01  |            | EYELET,ROLLED 0.1210DX0.192      | 12                | 12 | 12 | 12       |   |
| 68                        | 68   |              | 9009185-00  |            | JUMPER, WIRE, INSULATED, BLACK B | 4                 | 4  | 4  | 4        | W1-W4   |
| 69                        | 69   |              | 1301320-00  |            | 1.20 K .25 W 5.0 % CF            | 1                 | 1  | 1  | 1        | R10   |
| 70                        | 70   |              | 1910544-01  |            | 74S74-60GG-D DUAL,EDGE TRIG      | 1                 | 1  | 1  | 1        | E41   |
| 71                        | 71   | 2 EACH IC    | 1215006-06  |            | SKT,IC 24PIN DIP TIN SGLD        | 4                 | 4  | 4  | 4        | XE24,XE15   |

|   |   |   |   |   |   |   |       |               |           |      |      |      |                 |     |
|---|---|---|---|---|---|---|-------|---------------|-----------|------|------|------|-----------------|-----|
| D | I | G | I | T | A | L | TITLE | MS11-P MEMGRY | SECTION A | OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|   |   |   |   |   |   |   |       |               |           |      | K    | PL   | M8743-BA-DBP    | C   |

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PARTS LIST

| LINE | ITEM | TOP DOCUMENT       | PART NUMBER | MIN REV | DESCRIPTION                   | VARIATION REVISION LEVEL: | QTY PER VARIATION |     |     |     | REFERENCE DESIGNATOR                |
|------|------|--------------------|-------------|---------|-------------------------------|---------------------------|-------------------|-----|-----|-----|-------------------------------------|
|      |      |                    |             |         |                               |                           | BC                | BF  | BH  | BB  |                                     |
|      |      |                    |             |         |                               |                           |                   |     |     | E2  |                                     |
| 72   | 72   |                    | 1219911-01  |         | *** THIS ITEM IS NOT USED *** |                           | -                 | -   | -   | -   | E20                                 |
| 73   | 73   |                    | 23061D2-00  |         | D2-02                         |                           | 1                 | 1   | 1   | 1   | E25                                 |
| 74   | 74   |                    | 23062D2-00  |         | D2-02                         |                           | 1                 | 1   | 1   | 1   | E29                                 |
| 75   | 75   |                    | 23063D2-00  |         | D2-02                         |                           | 1                 | 1   | 1   | 1   | E34                                 |
| 76   | 76   |                    | 23064D2-00  |         | D2-02                         |                           | 1                 | 1   | 1   | 1   | E33                                 |
| 77   | 77   |                    | 23086B1-00  |         | B1-03                         |                           | 1                 | 1   | 1   | 1   | E39                                 |
| 78   | 78   |                    | 23087B1-00  |         | B1-03                         |                           | 1                 | 1   | 1   | 1   | E58                                 |
| 79   | 79   |                    | 23344A1-00  |         | A1-05                         |                           | 1                 | 1   | 1   | 1   | E100-E107,E110-E117,E120-E127,      |
| 80   | 80   |                    | 2118470-01  |         | 4864-1 MOS RAM 64K X1,200     |                           | -                 | 176 | -   | -   | E130-E137,E140-E147,E150-E157,      |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E160-E167,E170-E177,E180-E187, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E190-E197,E200-E207,E210-E217, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E220-E227,E230-E237,E240-E247, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E250-E257,E260-E267,E270-E277, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E280-E287,E290-E297,E300-E307, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E310-E317                      |
| 81   | 81   |                    | 2118472-01  |         | 4164-2 MOS RAM 64K X1,200     |                           | -                 | -   | 176 | -   | E100-E107,E110-E117,E120-E127,      |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E130-E137,E140-E147,E150-E157, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E160-E167,E170-E177,E180-E187, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E190-E197,E200-E207,E210-E217, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E220-E227,E230-E237,E240-E247, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E250-E257,E260-E267,E270-E277, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E280-E287,E290-E297,E300-E307, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E310-E317                      |
| 82   | 82   | K-CS-M8743-BA-MS02 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 83   | 83   | K-CS-M8743-BA-MS03 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 84   | 84   | K-CS-M8743-BA-MS04 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 85   | 85   | K-CS-M8743-BA-MS05 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 86   | 86   | K-CS-M8743-BA-MS06 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 87   | 87   | K-CS-M8743-BA-MS07 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 88   | 88   | K-CS-M8743-BA-MS08 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 89   | 89   | K-CS-M8743-BA-MS09 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 90   | 90   | K-CS-M8743-BA-MS10 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 91   | 91   | K-CS-M8743-BA-MS11 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 92   | 92   | K-CS-M8743-BA-MS12 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 93   | 93   | K-CS-M8743-BA-MS13 |             |         | CIRCUIT SCHEMATIC             |                           | REF               | REF | REF | REF |                                     |
| 94   | 94   |                    | 9105740-55  |         | WIRE(WRAP) 30AWG KYNAR UL14   |                           | A/R               | A/R | A/R | A/R | E23                                 |
| 95   | 95   |                    | 1921306-01  |         | 74F02 NOR GATE,QUAD,2-IN      |                           | 1                 | 1   | 1   | 1   | E100-E107,E110-E117,E120-E127,      |
| 96   | 96   |                    | 2118995-01  |         | 64K MOS RAM 200NS 1           |                           | -                 | -   | -   | 176 | E130-E137,E140-E147,E150-E157,      |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E160-E167,E170-E177,E180-E187, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E190-E197,E200-E207,E210-E217, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E220-E227,E230-E237,E240-E247, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E250-E257,E260-E267,E270-E277, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E280-E287,E290-E297,E300-E307, |
|      |      |                    |             |         |                               |                           |                   |     |     |     | CONT E310-E317                      |

|         |  |  |  |       |               |           |      |      |      |                 |     |
|---------|--|--|--|-------|---------------|-----------|------|------|------|-----------------|-----|
| DIGITAL |  |  |  | TITLE | MS11-P MEMCRY | SECTION A | OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|         |  |  |  |       |               |           |      | K    | PL   | M8743-BA-DBP    | C   |

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P A R T S   L I S T

SHEET A4 OF A4

| LINE ITEM | TOP DOCUMENT | PART NUMBER | MIN<br>REV | DESCRIPTION | QTY PER VARIATION<br>BC BF BH BB | REFERENCE DESIGNATOR<br>E2 |
|-----------|--------------|-------------|------------|-------------|----------------------------------|----------------------------|
|-----------|--------------|-------------|------------|-------------|----------------------------------|----------------------------|

VARIATION REVISION LEVEL:

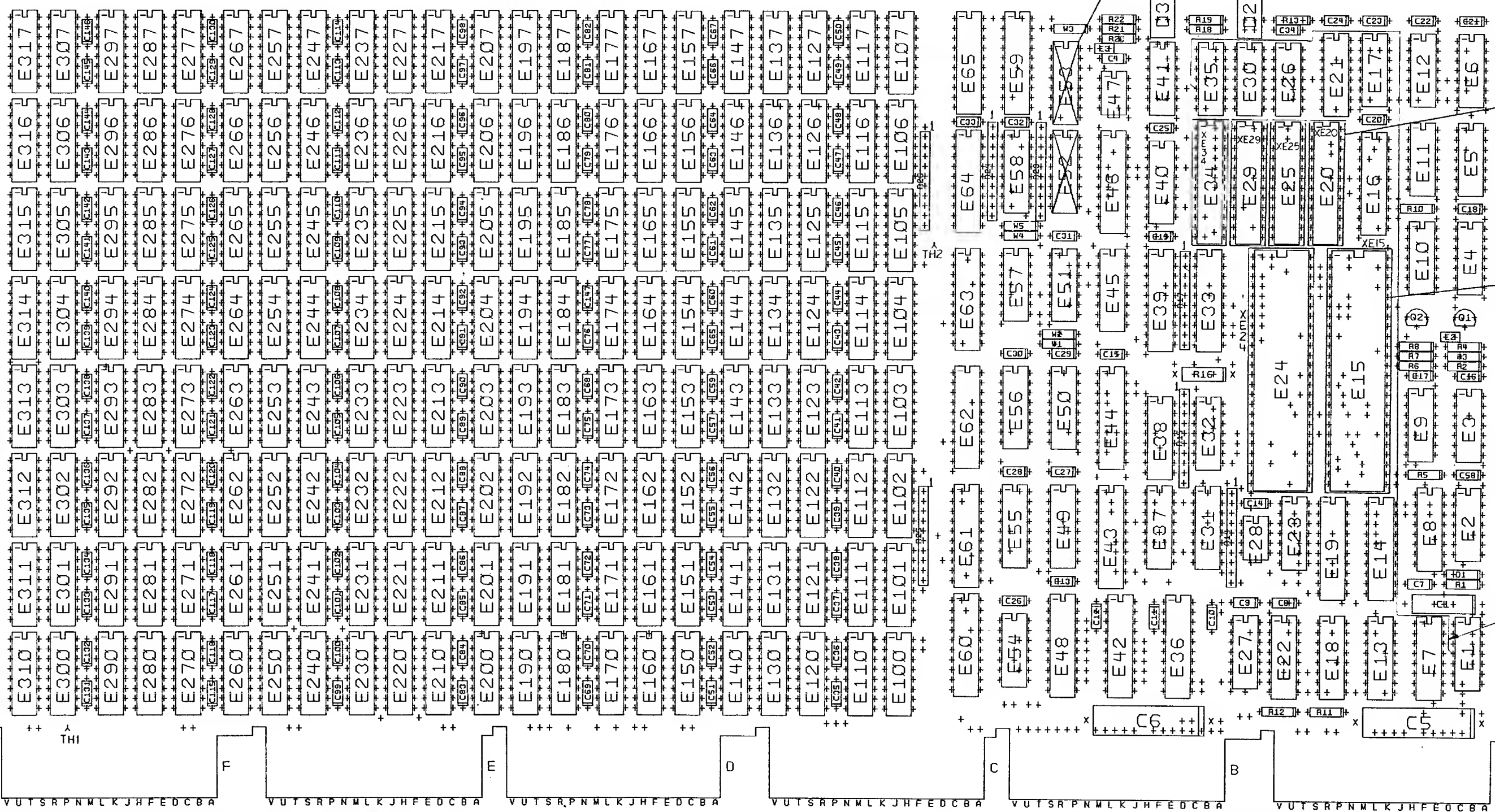
97 NOTE: M8743-BA IS THE PRIMARY VARIATION OF THE 512KX16 BITS SYSTEM (NOT A MODULE TYPE).  
98 NOTE: M8743-BC IS A MODULE TYPE USING FUJITSU 64K MOS DEVICES.  
99 NOTE: M8743-BF IS A MODULE TYPE USING HITACHI 64K MOS DEVICES.  
100 NOTE: M8743-BH IS A MODULE TYPE USING NEC 64K MOS DEVICES.  
101 NOTE: ON ITEM 71 USE 2 PER EACH IC  
102 NOTE: THIS ASSEMBLY CONTAINS ITEMS SENSITIVE TO ELECTRO-STATIC DISCHARGE.  
103 NOTE: MAINTAIN ANTI-STATIC PROTECTION PROCEDURES PER DEC STD 067.  
104 NOTE: \*\*\*\*\*  
105 NOTE: PART NUMBER 1016681-00 (HAND INSERT ONLY) MAY BE SUBSTITUTED FOR ITEM: 11, PART NUMBER 1014265-02  
106 NOTE: (MACHINE INSERTABLE) WITH THE FOLLOWING RESTRICTION: C4,C7-C147 MUST ALL BE THE SAME PART NUMBER.

|               |  |  |  |       |               |                |      |      |                 |     |
|---------------|--|--|--|-------|---------------|----------------|------|------|-----------------|-----|
| D I G I T A L |  |  |  | TITLE | MS11-P MEMCRY | SECTION A OF A | SIZE | CODE | DOCUMENT NUMBER | REV |
|               |  |  |  |       |               |                | K    | PL   | M8743-BA-DBP    | C   |

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COMPONENT SIDE VIEW

SEE NOTE 1



NOTES: 1. DO NOT INSTALL E52 & E53.

| STEP | E | Y AXIS | # | STEP | # | TIMES |
|------|---|--------|---|------|---|-------|
| REPT |   | X AXIS | # | STEP | # | TIMES |

| CHG           | NO | REV |
|---------------|----|-----|
| REDRAWN       | D  |     |
| M8743-BA      |    |     |
| SH003         |    |     |
| M8743-BA      | E  |     |
| SH007         |    |     |
| Q. LAURANCHUK |    |     |
| 1/2/84        |    |     |

|           |       |
|-----------|-------|
| ETCH REV. | D1-P1 |
|-----------|-------|

| SIGNATURES                      | DATE    |
|---------------------------------|---------|
| ORN. D. DINGELDEIN              | 1/6/83  |
| CHK'D. [Signature]              | 2/6/83  |
| MECH. ENG. [Signature]          | 3/10/83 |
| PROJ. ENG. [Signature]          | 3/10/83 |
| PROD. [Signature]               | 3/10/83 |
| SCALE 2/1                       |         |
| SHT. 1 OF 2                     |         |
| NEXT HIGHER ASSY. B-DD-M8743-BA |         |

|           |               |
|-----------|---------------|
| TITLE     | MSII-P MEMORY |
| SIZE CODE | D UA          |
| NUMBER    | M8743-BA-0    |
| REV       | E             |

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REWORK INSTRUCTIONS:

ECO #7, SIDE 1:

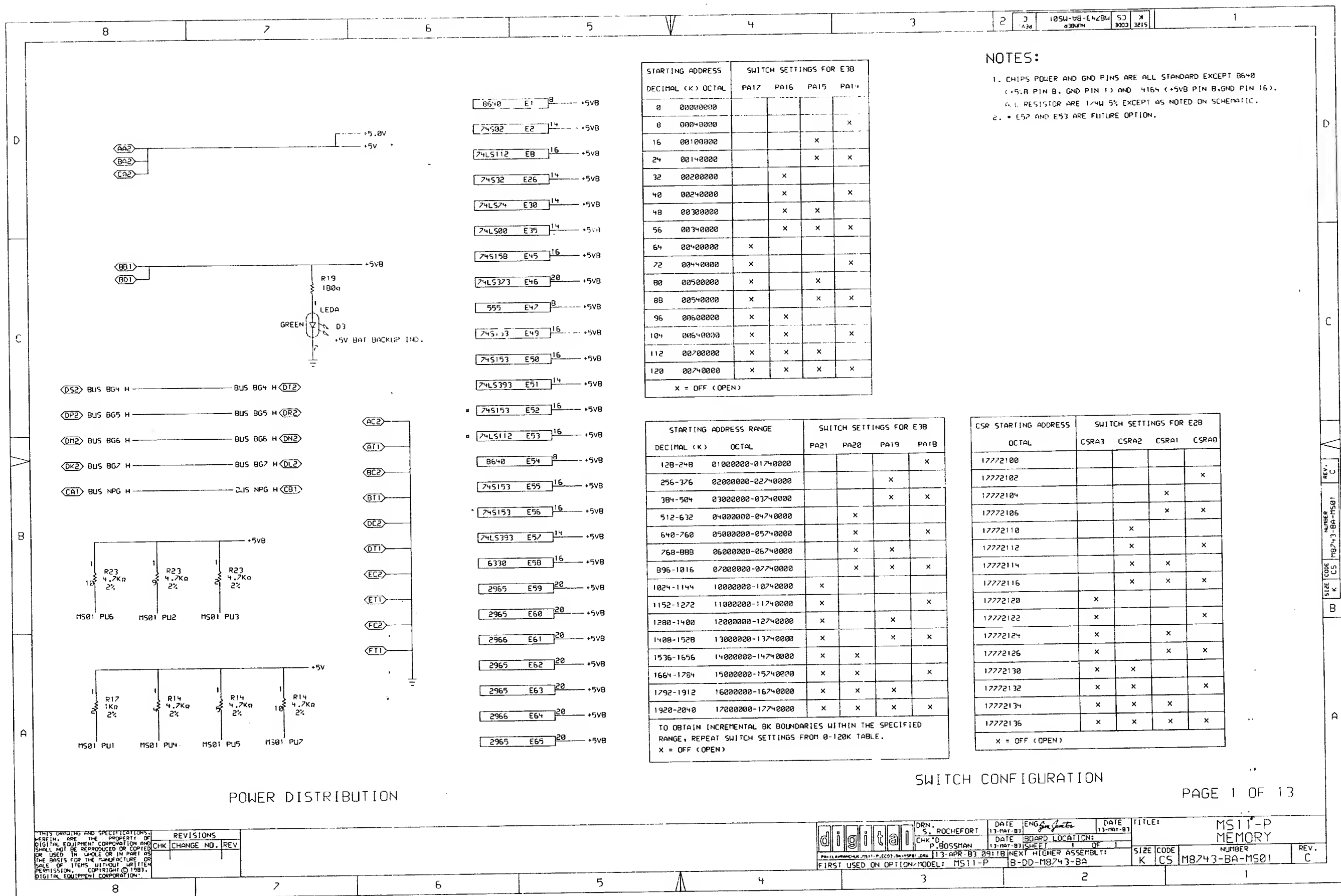
WIRE ADDS:

7-1. ADD WIRE FROM E1-4 TO E35-5 AS SHOWN.

SIZE CODE DUA  
NUMBER M8743-BA-0  
REV E

| REVISION HISTORY |            |      |
|------------------|------------|------|
| REV              | ECO NUMBER | DATE |
|                  |            |      |
|                  |            |      |
|                  |            |      |
|                  |            |      |
|                  |            |      |
|                  |            |      |
|                  |            |      |
|                  |            |      |
|                  |            |      |

| DOCUMENT NUMBER |            |        |
|-----------------|------------|--------|
| SIZE CODE       | NUMBER     | REV    |
| DUA             | M8743-BA-0 | E      |
| SCALE           |            | SHEET  |
| SHR             |            | 2 OF 2 |

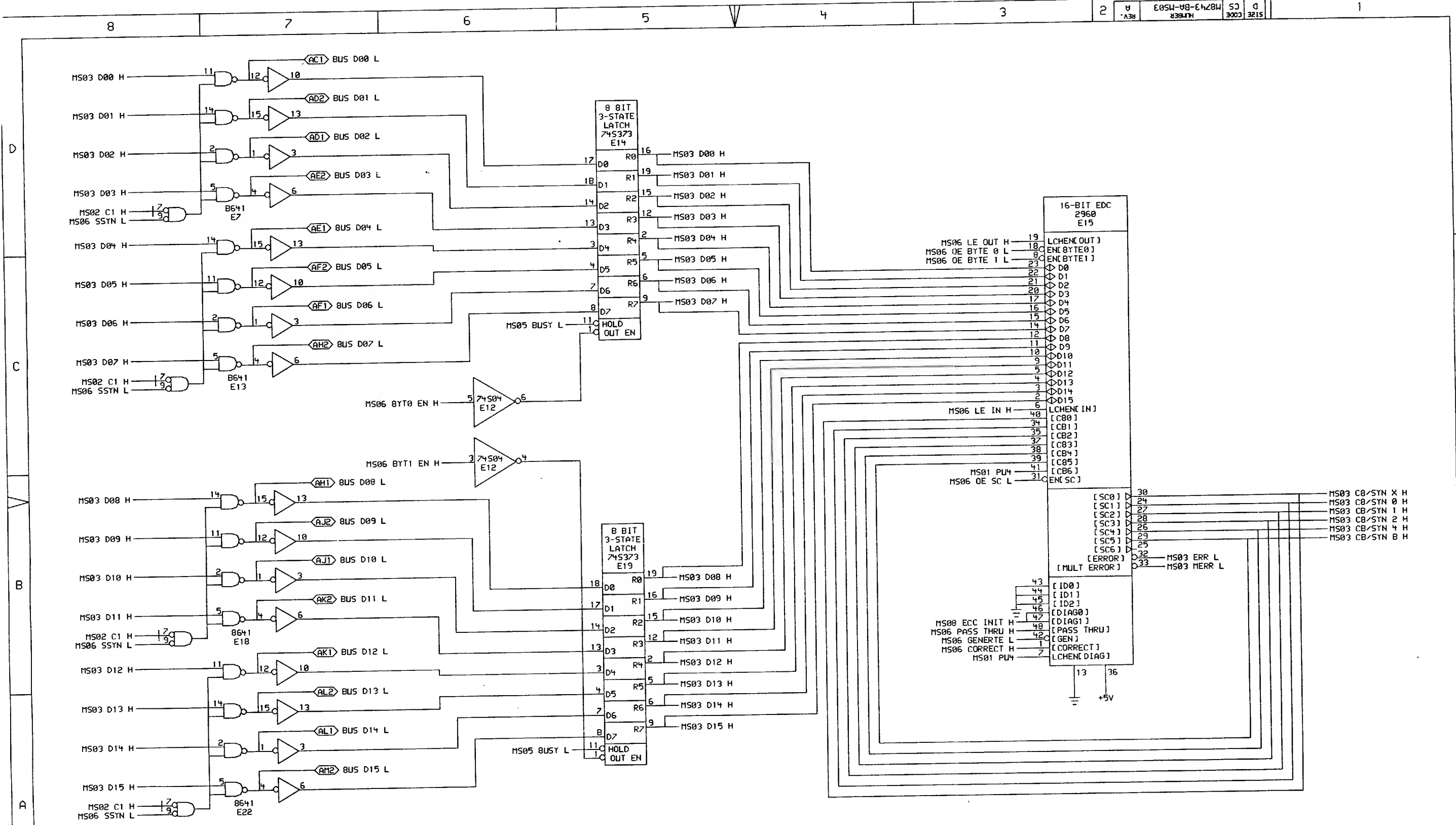


### NOTES:

1. CHIPS POWER AND GND PINS ARE ALL STANDARD EXCEPT B640 (+5.0V PIN 8, GND PIN 1) AND 4164 (+5.0V PIN 8, GND PIN 16). ALL RESISTORS ARE 1/4W 5% EXCEPT AS NOTED ON SCHEMATIC.
2. \* E52 AND E53 ARE FUTURE OPTION.







DATA BUS TRANSCEIVERS

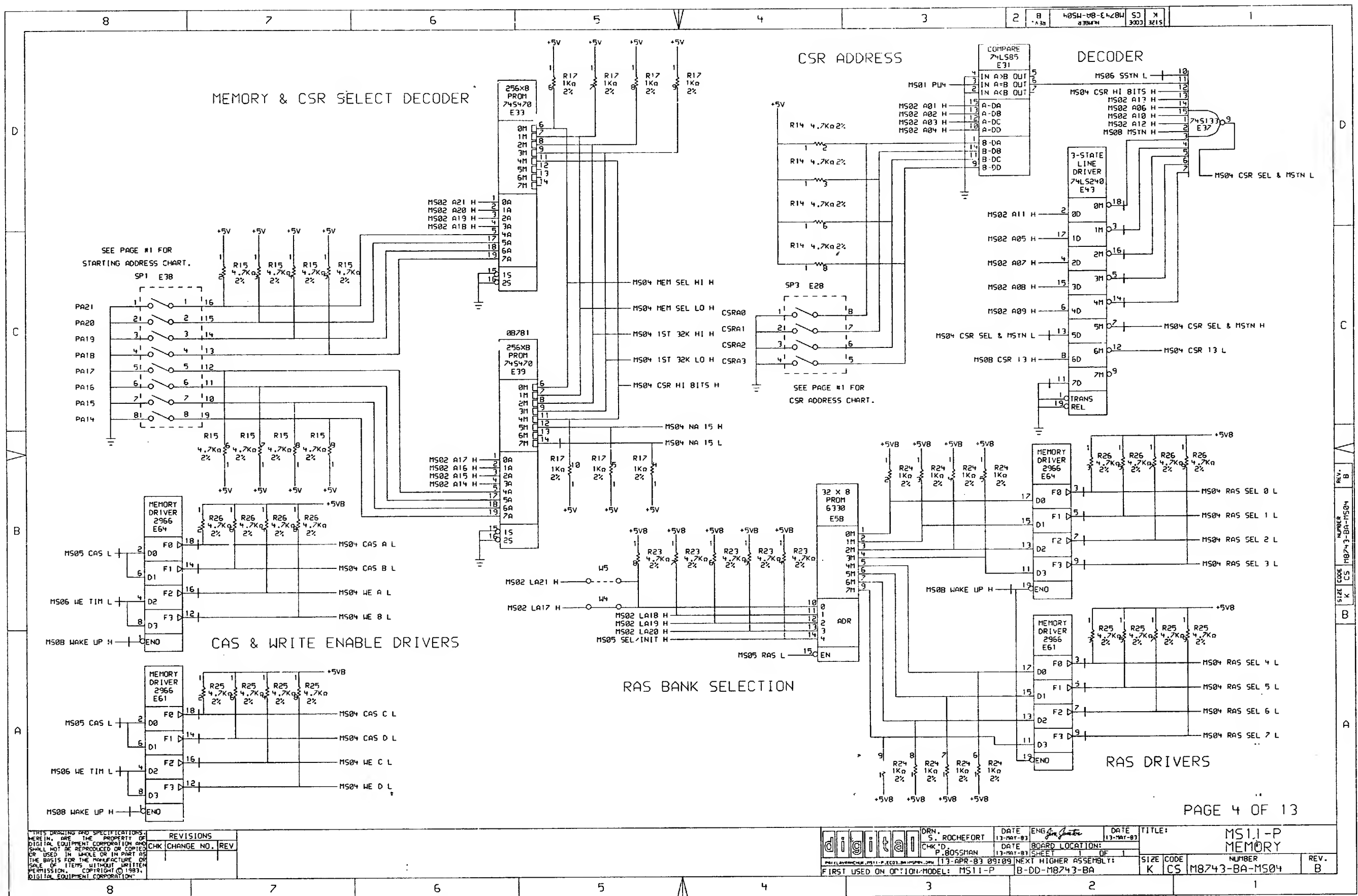
DATA LATCHES

EDC LOGIC

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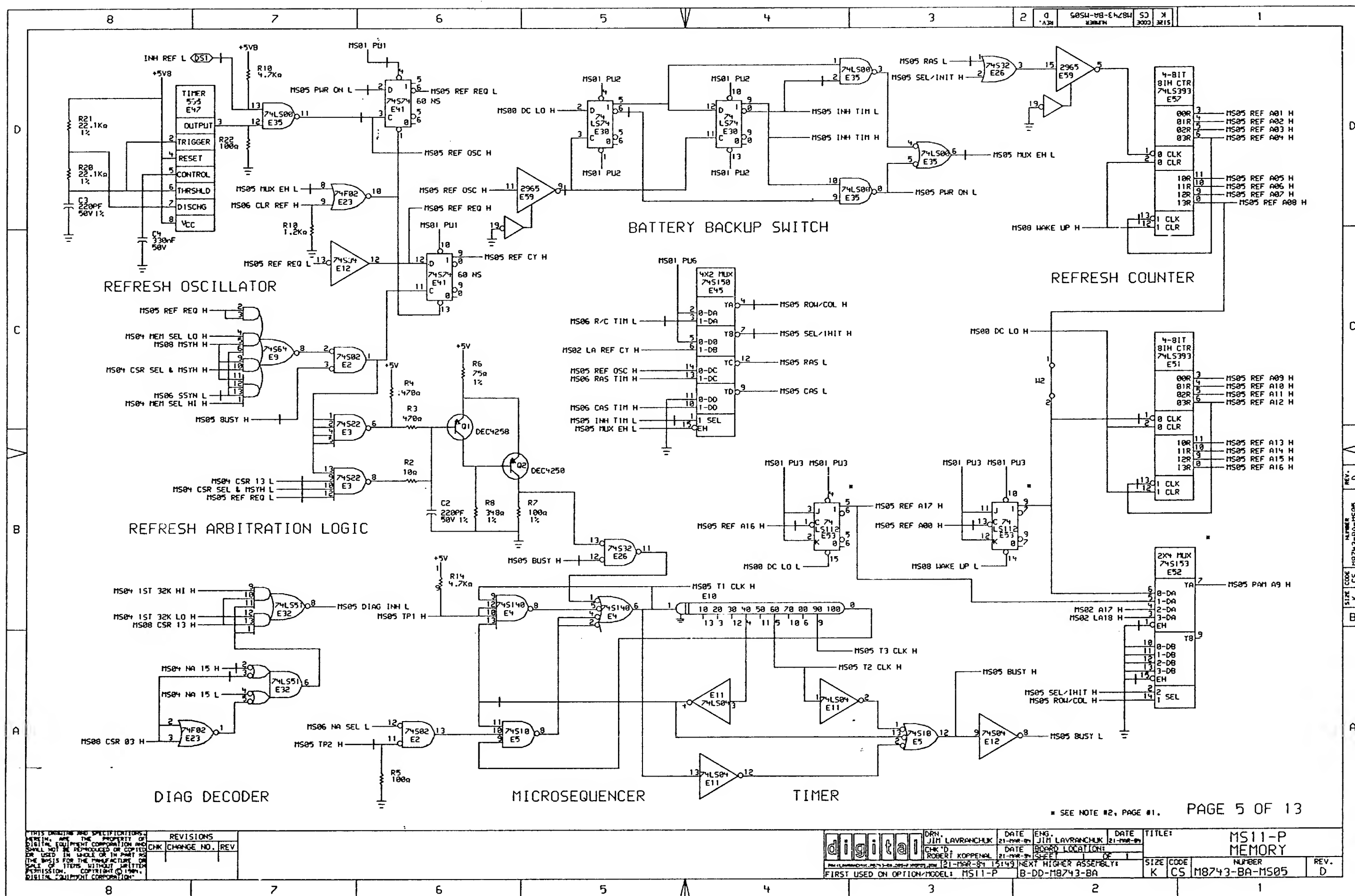
| REVISIONS |                |
|-----------|----------------|
| CHK       | CHANGE NO. REV |
|           |                |

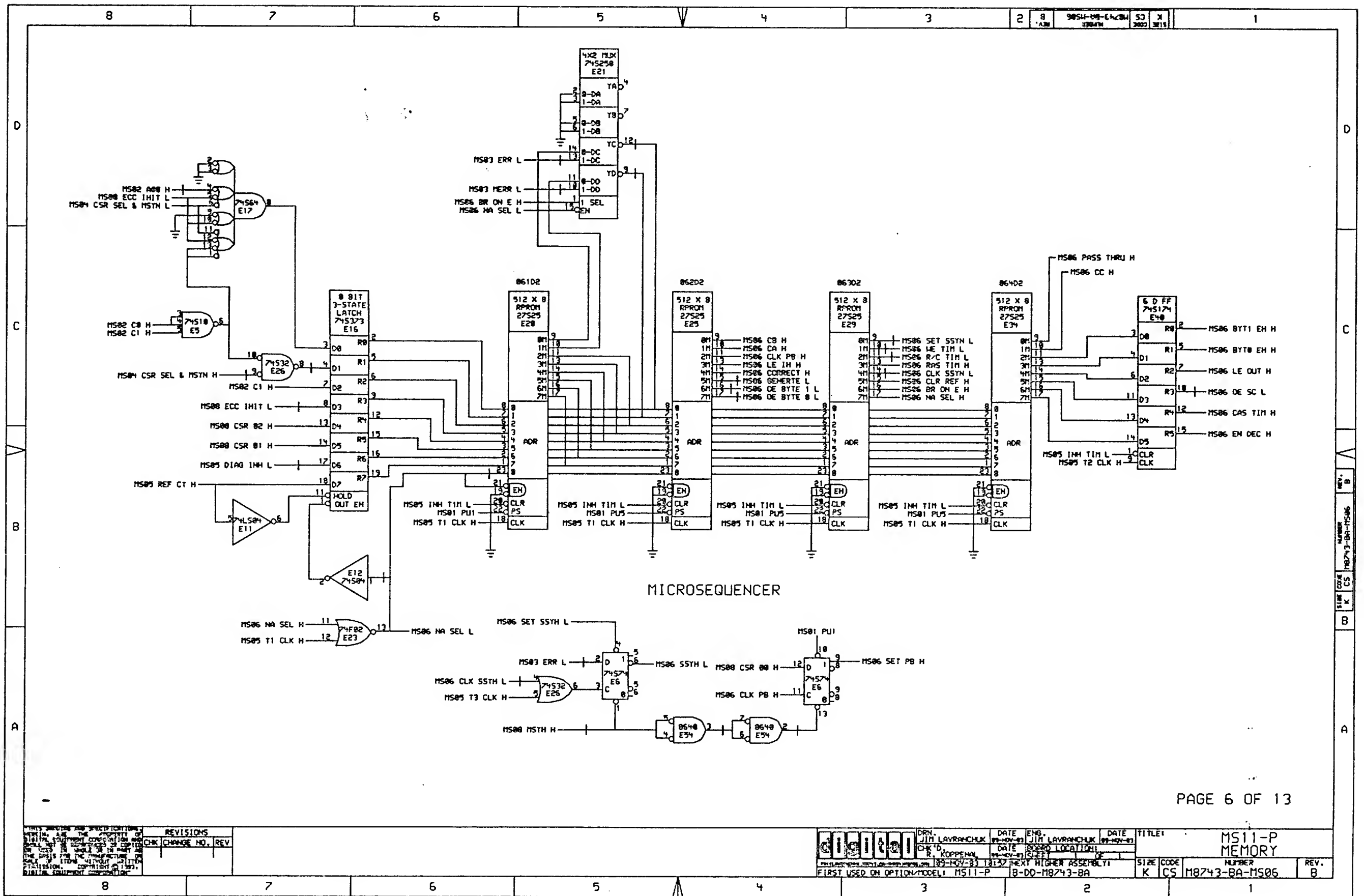
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|------------------------------------|------------------|-------------------------------------|------------------------|----------------------|
| digital                            | DATE 29-JUN-82   | ENG. <i>Donaleno</i>                | DATE 29-JUN-82         | TITLE: MS11-P        |
|                                    | CHK'D P. BOSSHAN | DATE 29-JUN-82                      | BOARD LOCATION: 1 OF 1 | MEMORY               |
| C710,1314 MSP03.DRW                |                  | NEXT HIGHER ASSEMBLY: B-DD-M8743-BA |                        | SIZE CODE D CS       |
| FIRST USED ON OPTION/MODEL: MS11-P |                  |                                     |                        | NUMBER M8743-BA-MS03 |
|                                    |                  |                                     |                        | REV. A               |



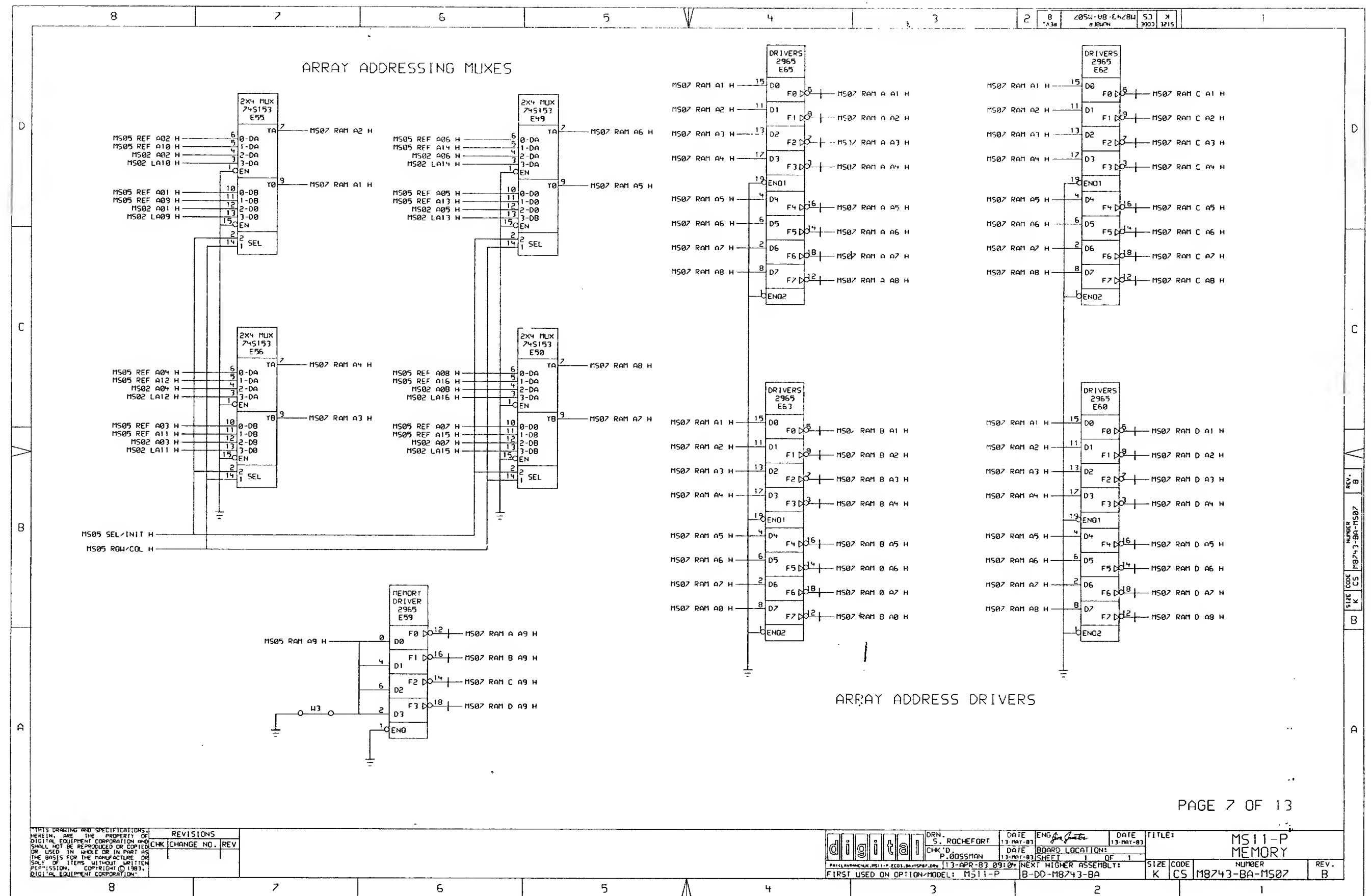
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|------|------|-----|------|
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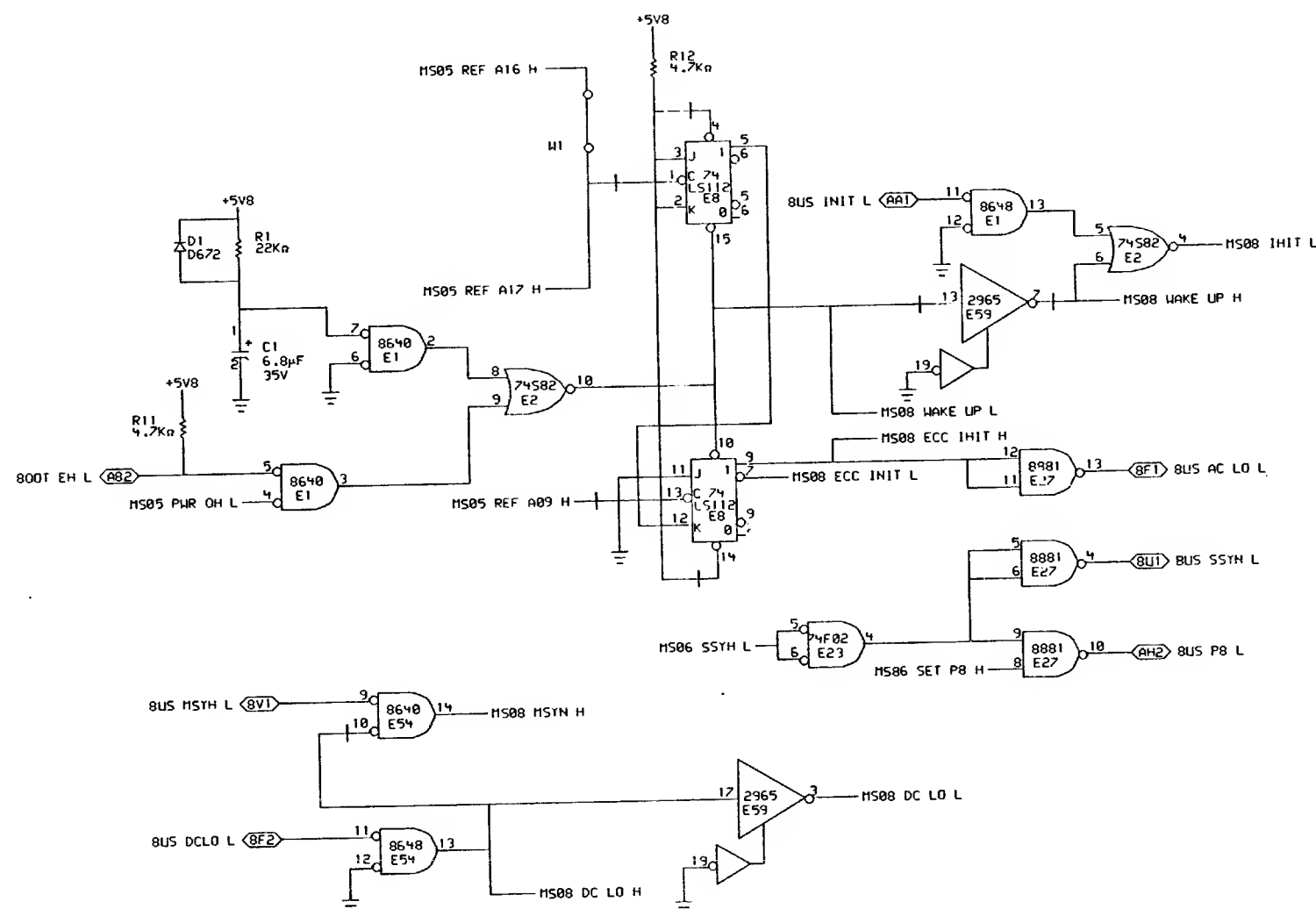
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|----------------------------|------------|-----------------------|---------------|-----------|------|------|-----------|--------|---------------|
| DRN.                       | 5          | ROCHEFORT             | DATE          | 13-MAY-83 | ENG. | DATE | 13-MAY-83 | TITLE: | MS11-P        |
| CHK'D                      | P. BOSSMAN | DATE                  | 13-MAY-83     | SHEET     | 1    | OF   | 1         | NUMBER | MS11-P        |
| FIRST USED ON OPTIM-MODEL: | MS11-P     | NEXT HIGHER ASSEMBLY: | B-DD-M8743-BA | SIZE      | K    | CODE | CS        | NUMBER | M8743-BA-MS04 |
|                            |            |                       |               | REV.      | B    |      |           |        |               |



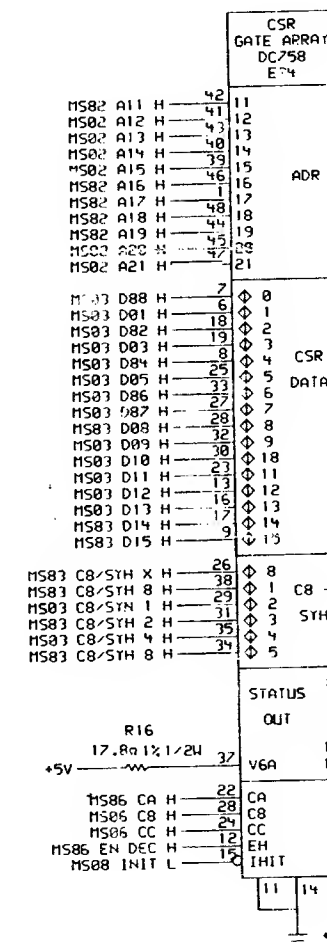


|                                  |  |  |  |  |   |  |
|----------------------------------|--|--|--|--|---|--|
| REVISIONS<br>CHK CHANGE NO. REV. |  |  |  |  | DRN. JIN LAVRANCHUK<br>DATE 89-10V-01<br>R. KOPPENHA<br>DATE 89-10V-01<br>FIRST USED ON OPTION/MODEL MS11-P | TITLE: MS11-P MEMORY<br>NUMBER: 88280 LOCATION: 13132 NEXT HIGHER ASSEMBLY: B-DD-M8743-BA<br>SIZE CODE: K CS<br>REV. B |
|----------------------------------|--|--|--|--|---|--|

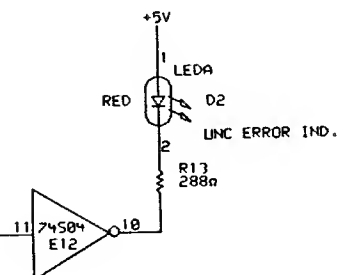




UNIBUS CONTROL LOGIC

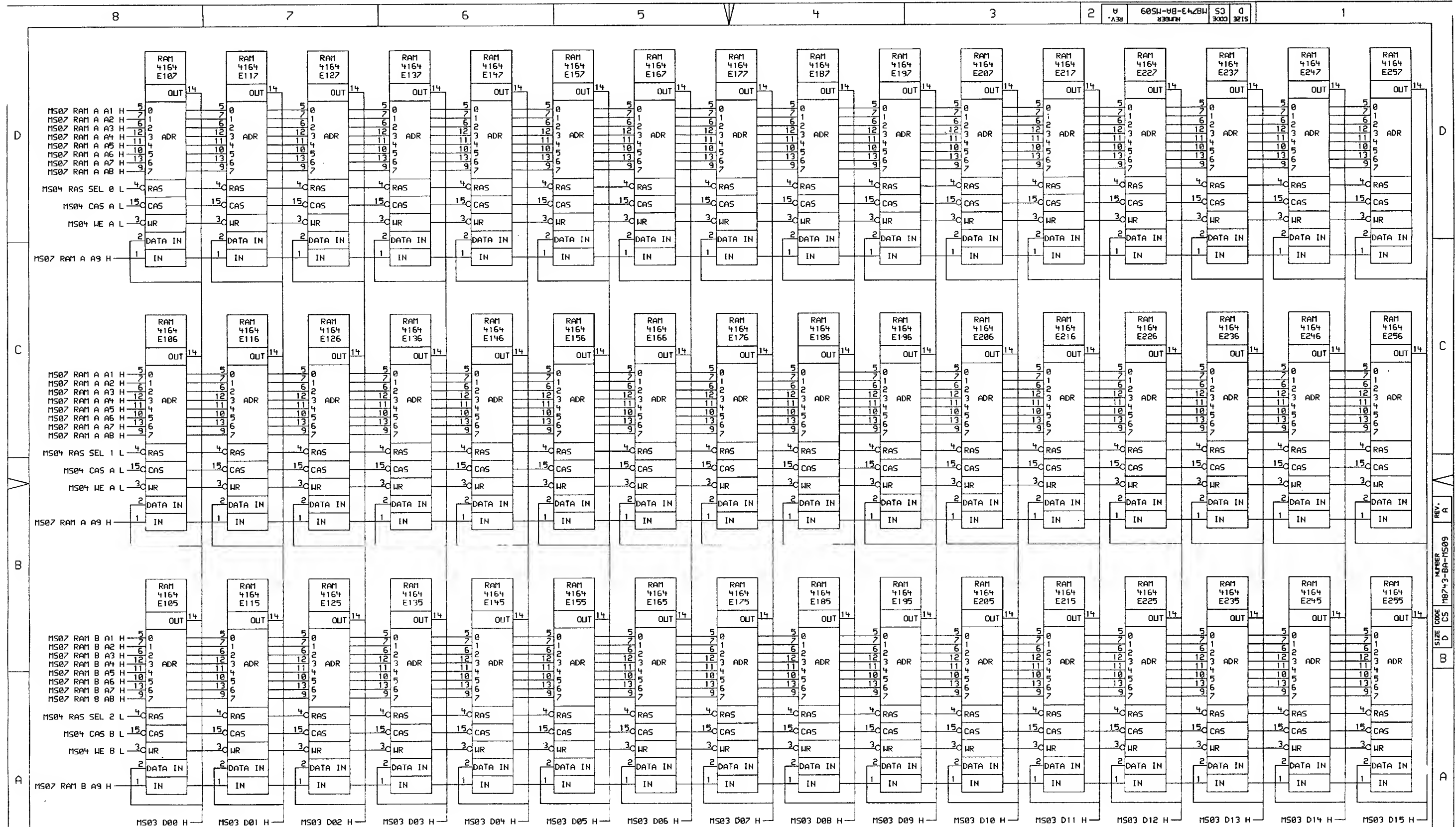


CSR LOGIC



| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|                                    |  |                    |                |                               |                                     |                      |
|------------------------------------|--|--------------------|----------------|-------------------------------|-------------------------------------|----------------------|
| digital                            |  | DRN. JIM LAVANCHUK | DATE 12-MAY-84 | ENG. JIM LAVANCHUK            | DATE 12-MAY-84                      | TITLE: MS11-P MEMORY |
| CHK'D R. KOPPENAL                  |  | DATE 12-MAY-84     | 12:32          | BOARD LOCATION: B-DD-M8743-BA | NEXT HIGHER ASSEMBLY: B-DD-M8743-BA |                      |
| FIRST USED ON OPTION/MODEL: MS11-P |  | SIZE CODE K CS     |                | NUMBER M8743-BA-MS08          |                                     | REV. D               |



MEMORY ARRAY

PAGE 9 OF 13

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| REVISIONS |            |     |
|-----------|------------|-----|
| CHK       | CHANGE NO. | REV |
|           |            |     |

|                                     |                  |                       |                              |                      |
|-------------------------------------|------------------|-----------------------|------------------------------|----------------------|
| <b>digital</b>                      | DATE 29-JUN-82   | ENG <i>Jim Foster</i> | DATE 29-JUN-82               | TITLE: MS11-P MEMORY |
|                                     | CHK'D P. BOSSMAN | DATE 29-JUN-82        | BOARD LOCATION: SHEET 1 OF 1 | NUMBER               |
| FIRST USED ON OPTION MODEL: MS11-P  |                  |                       |                              | SIZE CODE D CS       |
| NEXT HIGHER ASSEMBLY: B-DD-M8743-BA |                  |                       |                              | REV. A               |

8

7

6

5

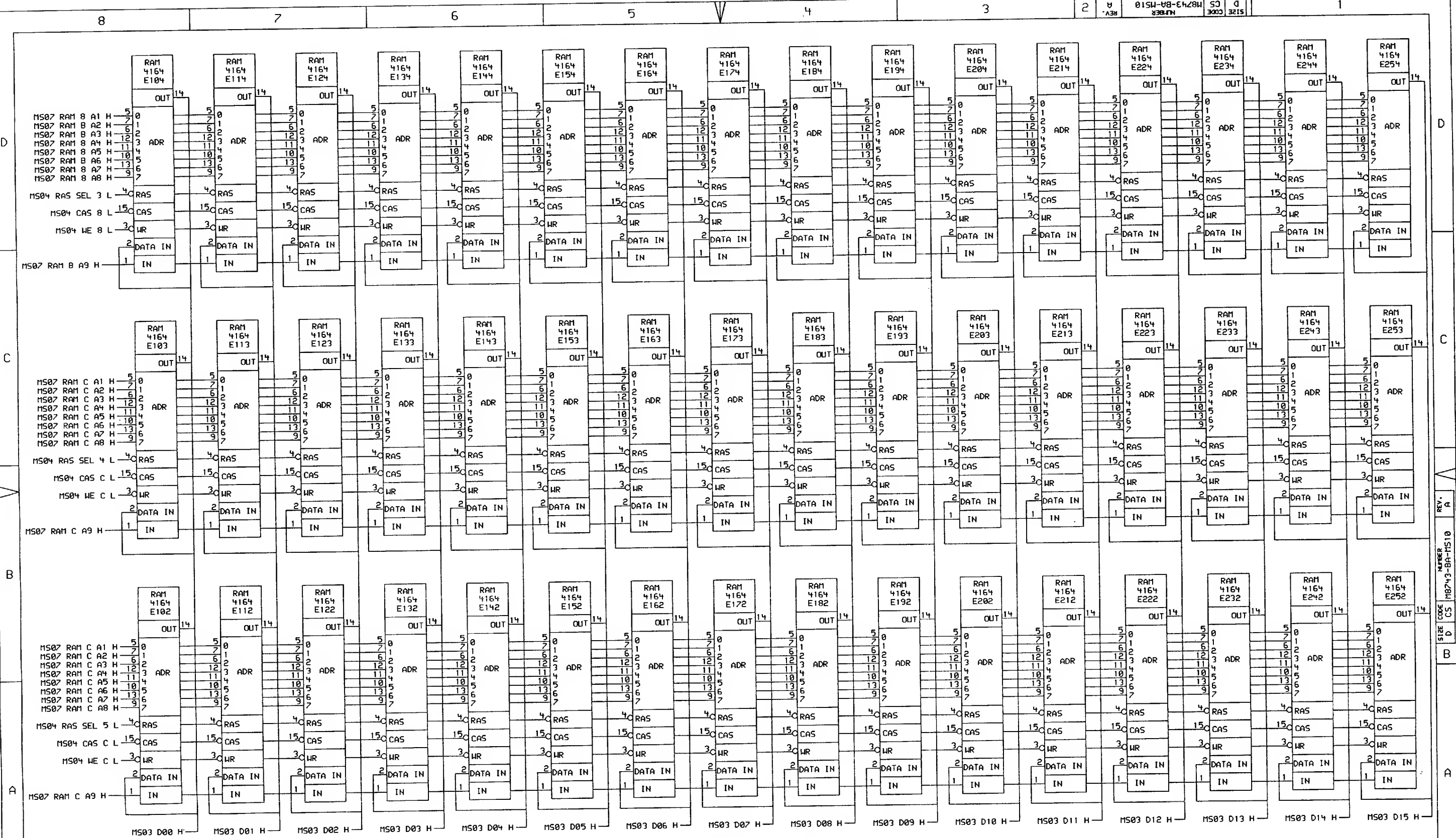
4

3

2

1

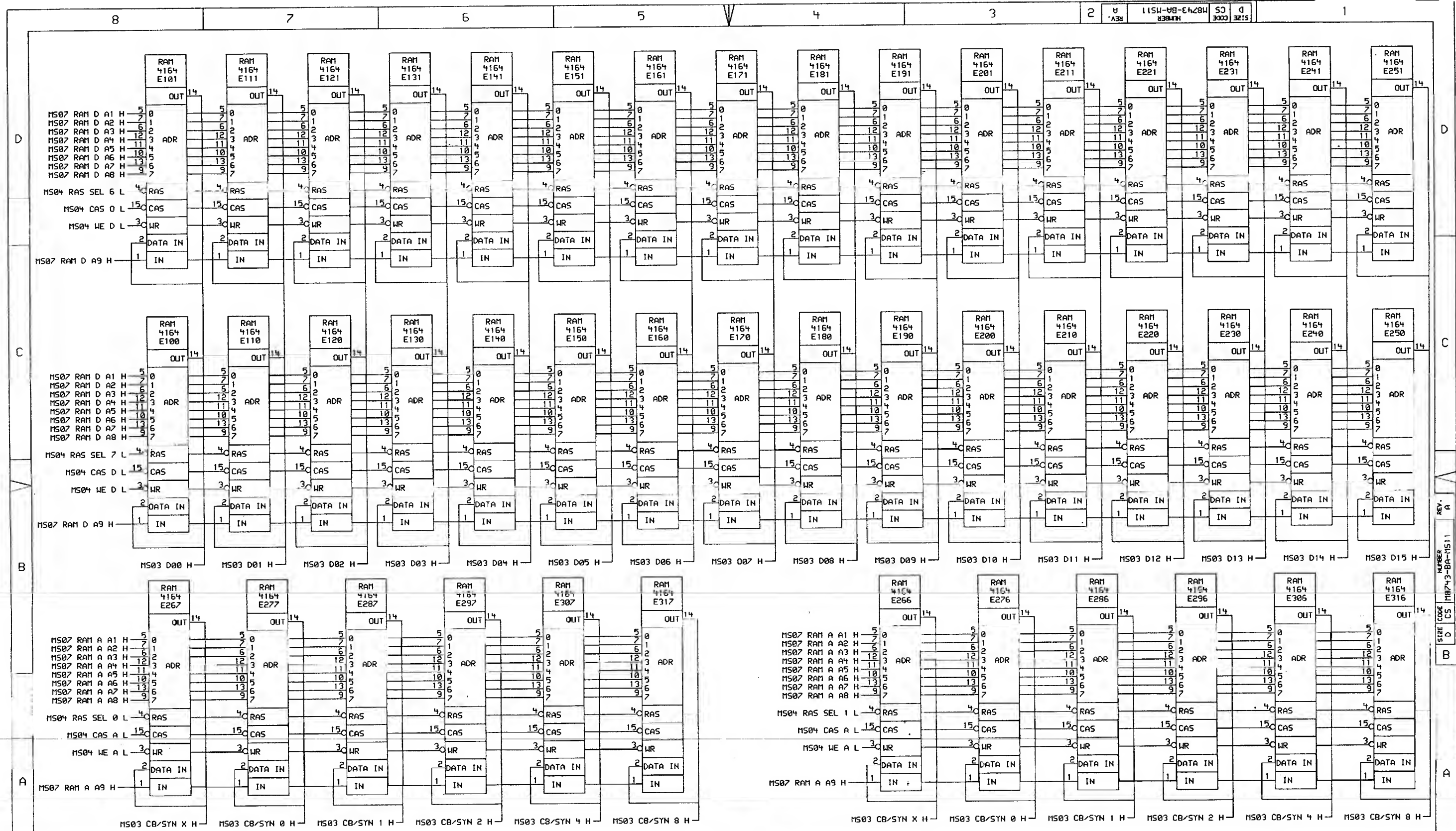




MEMORY ARRAY

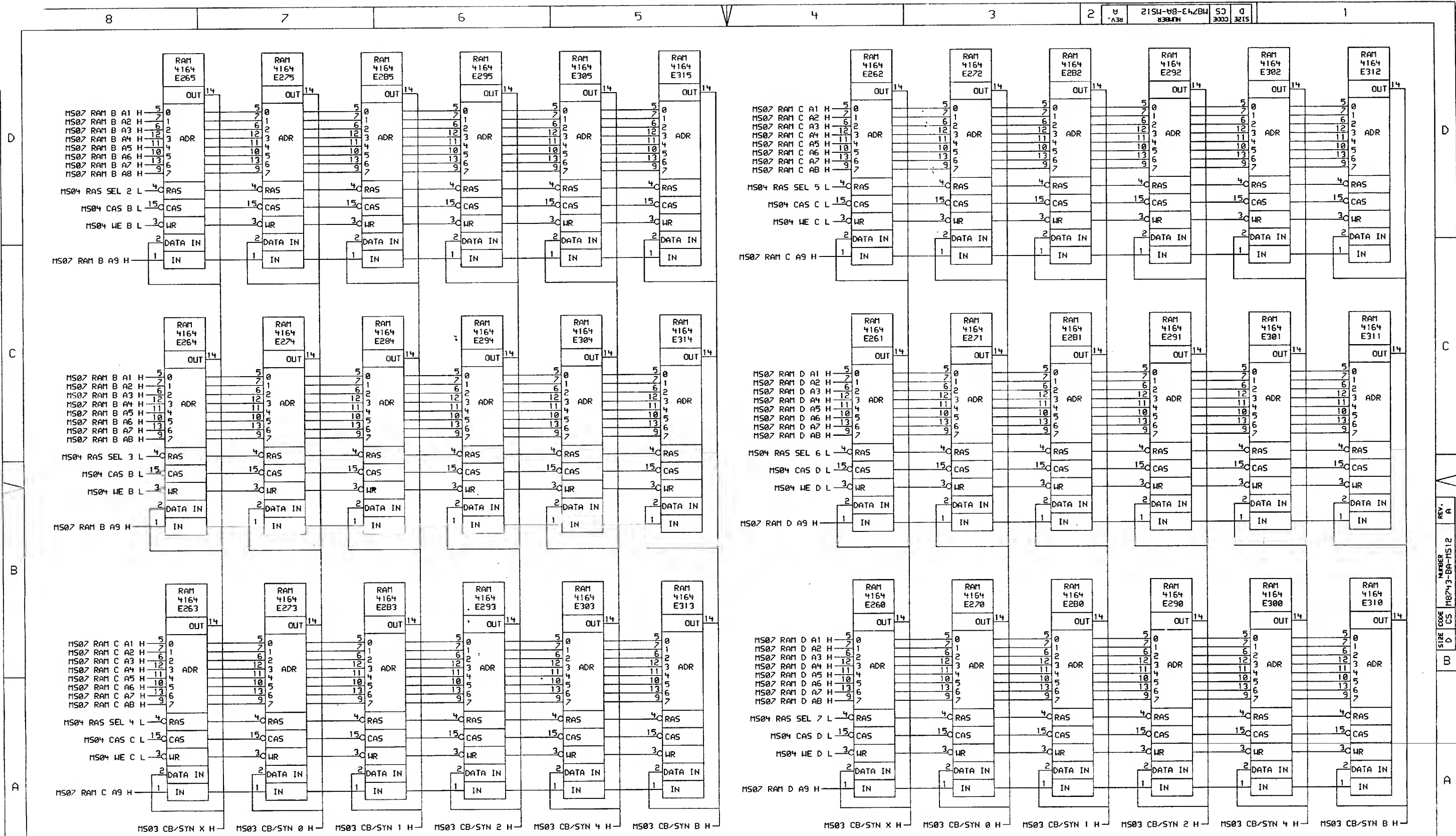
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|--|--|---------------------------------|--|---|--|---|--|-------------------------|--|--|--|--------|--|
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|--|--|---------------------------------|--|---|--|---|--|-------------------------|--|--|--|--------|--|





MEMORY ARRAY

|  |  |                                 |  |   |  |                                  |   |                      |  |                |                      |        |
|--|--|---------------------------------|--|---|--|----------------------------------|---|----------------------|--|----------------|----------------------|--------|
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| FIRST USED ON OPTION/MODEL: MS11-P   |  |                                 |  |   |  |                                  |   |                      |  | B-DD-M8743-BA  |                      |        |



MEMORY ARRAY

|   |  |                                 |  |  |  |   |  |   |  |
|---|--|---------------------------------|--|--|--|---|--|---|--|
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|---|--|---------------------------------|--|--|--|---|--|---|--|



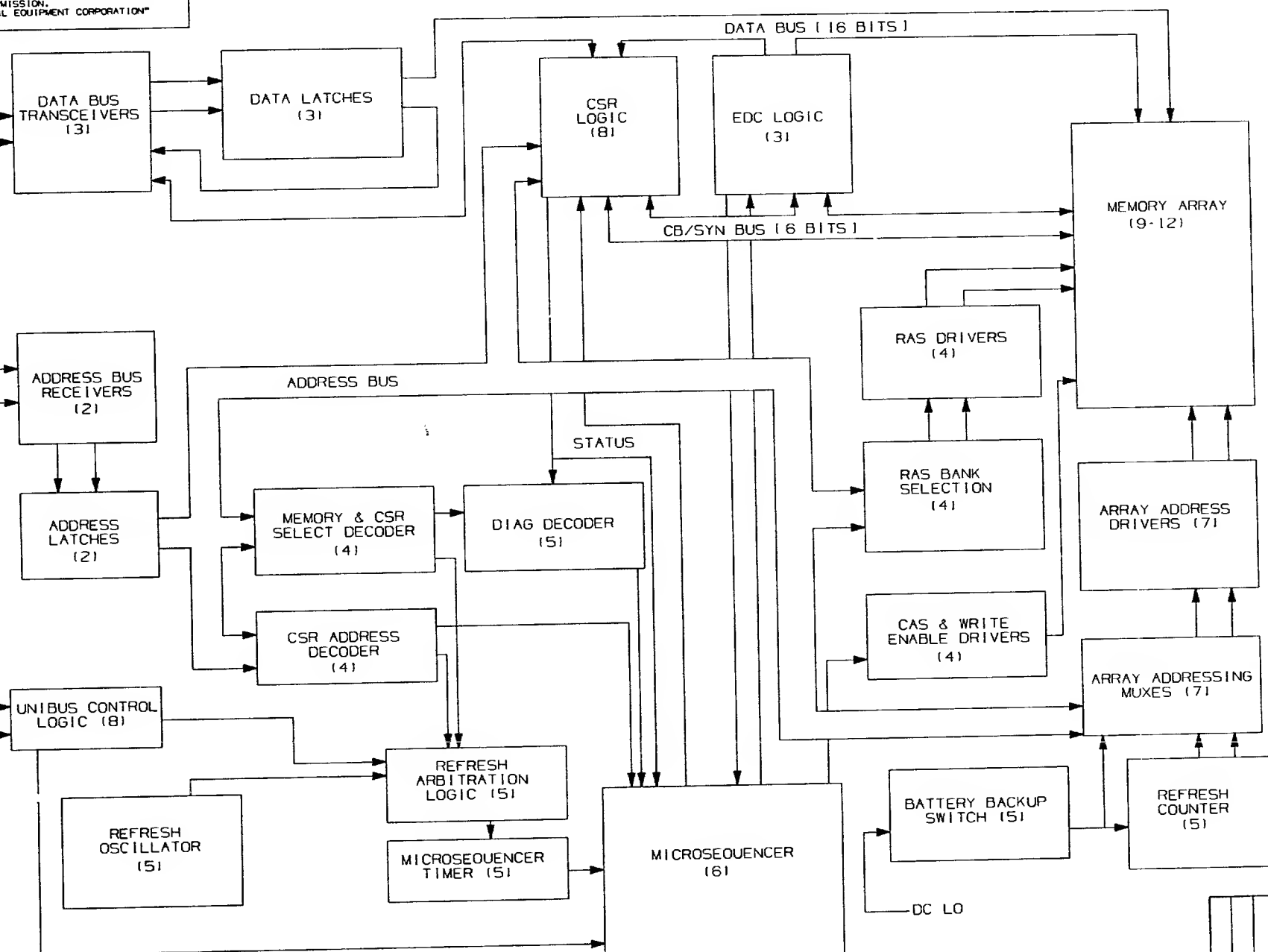
**digital**

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# NOTES:

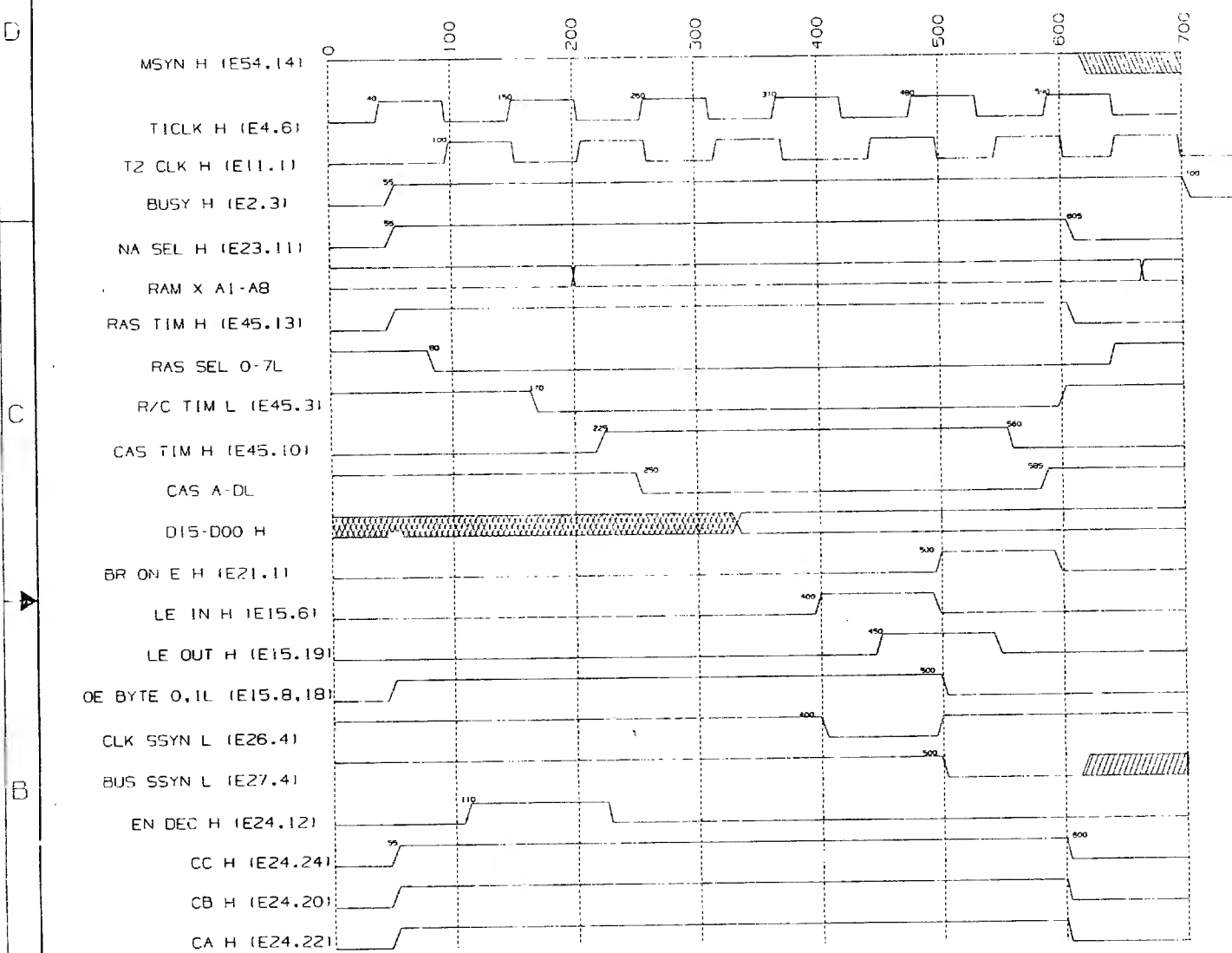
1. NUMBERS IN PARENTHESES ARE SCHEMATIC PAGE NUMBERS.

UNIBUS



| DESCRIPTION  |                 | DRAWING NO.     | PART NO.         | ITEM NO.          |
|--|-----------------|-----------------|------------------|-------------------|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114) |                 |                 |                  |                   |
| DIMENSION RANGE IN INCHES  |                 |                 |                  |                   |
| OVER 0 TO 0.2  | OVER 0.2 TO 1.2 | OVER 1.2 TO 4.0 | OVER 4.0 TO 12.0 | OVER 12.0 TO 40.0 |
| ±.02   | ±.03            | ±.05            | ±.10             | ±.10              |
| ±.004  | ±.008           | ±.012           | ±.016            | ±.024             |
| ±.04   |                 |                 |                  |                   |
| APPLICABLE DIMENSION RANGE   |                 |                 |                  |                   |
| CHECK ONE  |                 |                 |                  |                   |
| <input type="checkbox"/> SURFACE QUALITY   |                 |                 |                  |                   |
| <input checked="" type="checkbox"/> MICROFINISH  |                 |                 |                  |                   |
| THIRD ANGLE PROJECTION   |                 |                 |                  |                   |
| DO NOT SCALE DRAWING   |                 |                 |                  |                   |
| REMOVE BURRS AND BREAK SHARP CORNERS   |                 |                 |                  |                   |
| MATERIAL   |                 |                 |                  |                   |
| FINISH   |                 |                 |                  |                   |
| DATE   |                 | DATE            |                  |                   |
| G.C. MACKENZIE   |                 | 9/22/82         |                  |                   |
| J. JANETOS   |                 | 9/22/82         |                  |                   |
| J. JANETOS   |                 | 9/22/82         |                  |                   |
| J. JANETOS   |                 | 9/22/82         |                  |                   |
| R.HILL   |                 | 9/22/82         |                  |                   |
| TOP DOC.   |                 |                 |                  |                   |
| TITLE  |                 | digital         |                  |                   |
| MS11-P   |                 | BLOCK DIAGRAM   |                  |                   |
| DOCUMENT NUMBER  |                 |                 |                  |                   |
| SIZE CODE NUMBER   |                 | REV.            |                  |                   |
| D BD MS11-P-DBU  |                 | A               |                  |                   |
| SCALE 1/1  |                 | SHEET 1 OF 1    |                  |                   |

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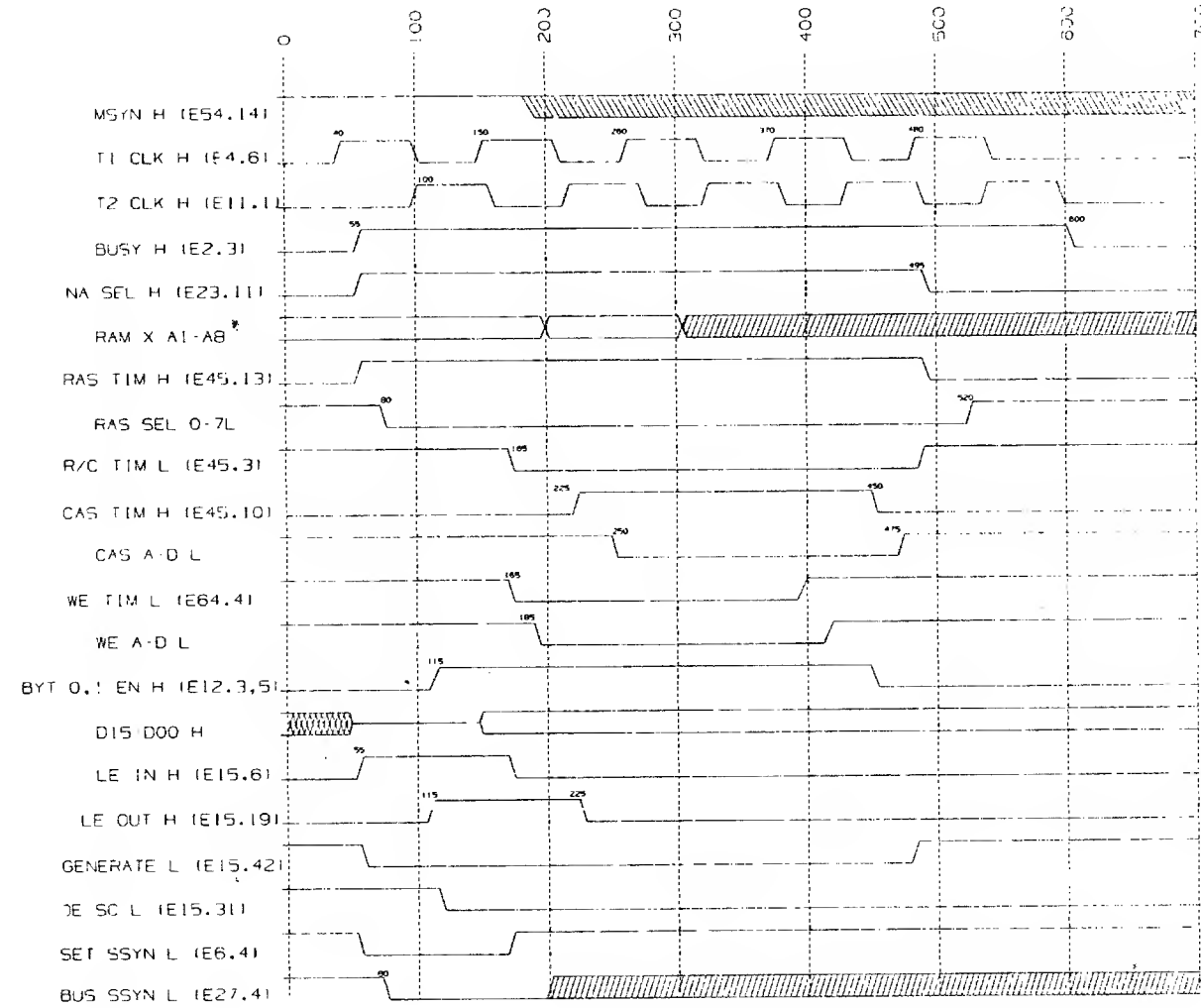


(DATA, TIMING)

| REV. | CHG. | NO. | DATE   |
|------|------|-----|--------|
| 1    | 1    | 1   | 9/8/82 |

|  |  |                        |  |                            |  |  |  |
|--|--|------------------------|--|----------------------------|--|--|--|
| DESCRIPTION  |  | DRAW NO.               |  | PART NO.                   |  | ITEM NO.   |  |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY IPER DEC STD 1141 |  |                        |  |                            |  |  |  |
| INCHES TOLERANCES  |  | ANGLES 10°-30°         |  | APPLICABLE DIMENSION RANGE |  | DIMENSION RANGE IN INCHES  |  |
| .X: ± .1<br>.XX: ± .02<br>.XXX: ± .005   |  | SURFACE QUALITY<br>✓   |  | FEDER ONE                  |  | OVER 0.2 TO 0.5<br>OVER 0.5 TO 1.0<br>OVER 1.0 TO 2.0<br>OVER 2.0 TO 4.0<br>OVER 4.0 TO 12.0<br>OVER 12.0 TO 40.0<br>OVER 40.0 TO 80.0 |  |
| QUANTITY & VARIATION   |  | THIRD ANGLE PROJECTION |  | DATE                       |  | TITLE  |  |
| FIRST HIGHER ASSY  |  | DO NOT SCALE DRAWING   |  | 9/8/82                     |  | MEMORY SYSTEM TIMING   |  |
| REMOVE BURRS AND BREAK SHARP CORNERS   |  | DES. ENG.              |  | 9/8/82                     |  | DOCUMENT NUMBER  |  |
| MATERIAL   |  | RESP. ENG.             |  | 9/8/82                     |  | D TO MS11-P DBU  |  |
| FINISH   |  | WFG. ENG.              |  | 9/8/82                     |  | SCALE NONE   |  |
|  |  | TOP DOC.               |  |                            |  | 4 OF 1 OF 1  |  |

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(DATA TIMING)

| REVISIONS |           |     |
|-----------|-----------|-----|
| CHK       | CHANGE NO | REV |
|           |           |     |

|        |      |               |           |            |     |
|--------|------|---------------|-----------|------------|-----|
| TITLE  |      | MEMORY SYSTEM | SIZE/DATE | NUMBER     | REV |
| TIMING |      |               | D         | MS11-P-DBU | A   |
| SCALE  | NONE | SHEET         | 2         | OF         | 6   |
| DIST   |      |               |           |            |     |



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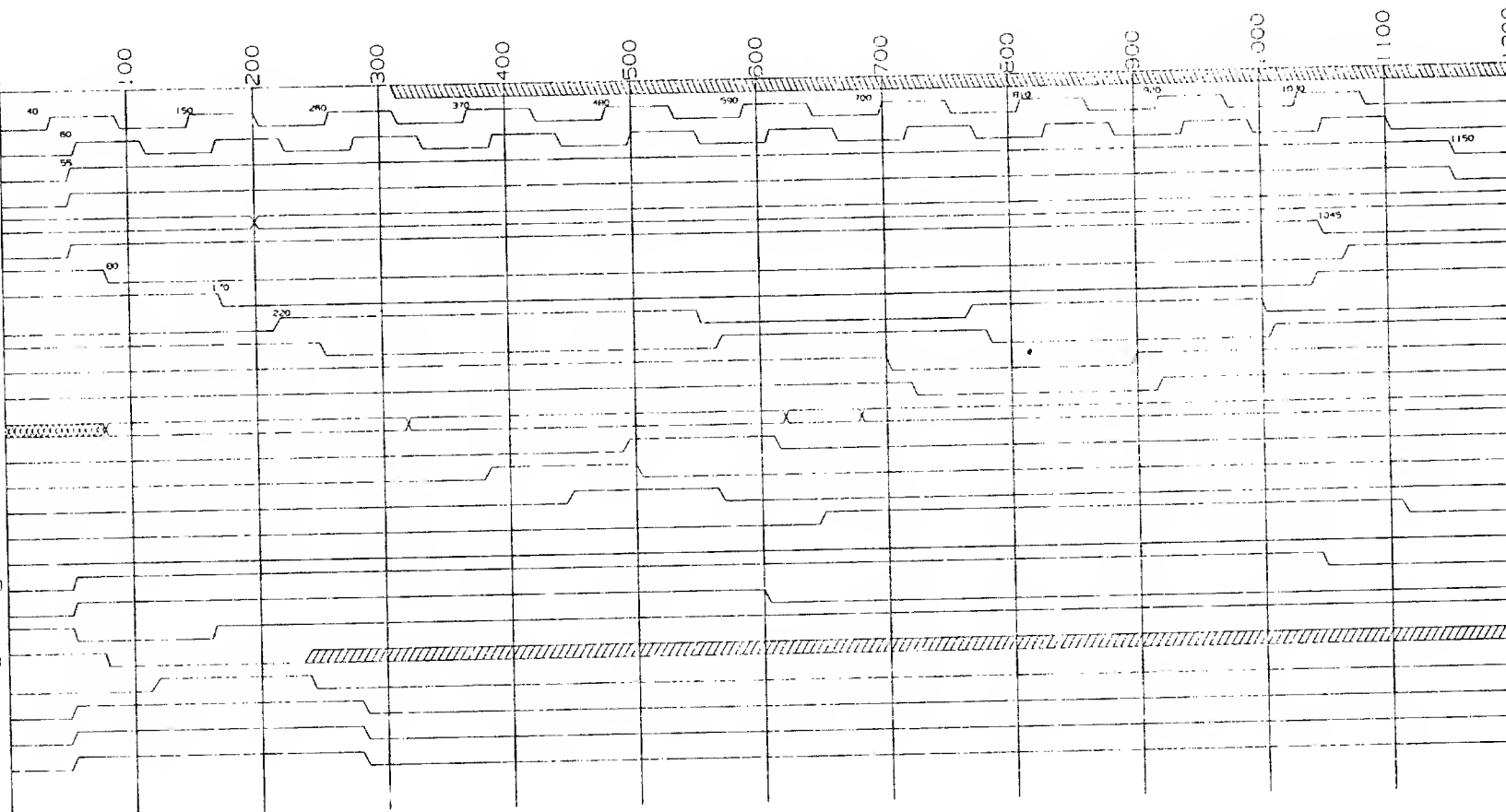
C

B

A

| REVISIONS |           |     |
|-----------|-----------|-----|
| CHK       | CHANGE NO | REV |
|           |           |     |

MSYN H (E54.14)  
 T1 CLK H (E4.6)  
 T2 CLK H (E11.1)  
 BUSY H (E2.3)  
 NA SEL H (E23.11)  
 RAM X A1-A8  
 RAS TIM H (E45.13)  
 RAS SEL 0-7 L  
 R/C TIM L (E45.3)  
 CAS TIM H (E45.10)  
 CAS A-D L  
 WE TIM L (E64.4)  
 WE A-D L  
 DIS-000 H  
 BR ON E H (E21.1)  
 LE IN H (E15.6)  
 LE OUT H (E15.19)  
 BYTO EN H (E12.5)  
 BYTI EN H (E12.3)  
 OE BYTE 0 L (E15.18)  
 OE BYTE 1 L (E15.8)  
 SET SSYN L (E6.4)  
 BUS SSYN L (E27.4)  
 EN DEC H (E24.12)  
 CC H (E24.24)  
 CB H (E24.20)  
 CA H (E24.22)



(DATOB TIMING)

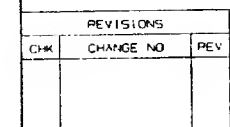
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|---------------|------|-----------|------------|------|
| MEMORY SYSTEM |      | D         | MS11-P-DBU | A    |
| TIMING        |      |           |            |      |
| SCALE         | NONE | SHEET     | 3 OF 6     | DIST |

DIGITAL EQUIPMENT CORPORATION

B

A





(DATI, CSR)

|        |      |               |   |      |      |            |  |     |
|--------|------|---------------|---|------|------|------------|--|-----|
| TITLE  |      | MEMORY SYSTEM |   | SIZE | CODE | NUMBER     |  | REV |
| TIMING |      |               |   | D    | TD   | MS11-P-CBU |  | A   |
| SCALE  | NONE | SHEET         | 4 | OF   | 6    | DIST       |  |     |

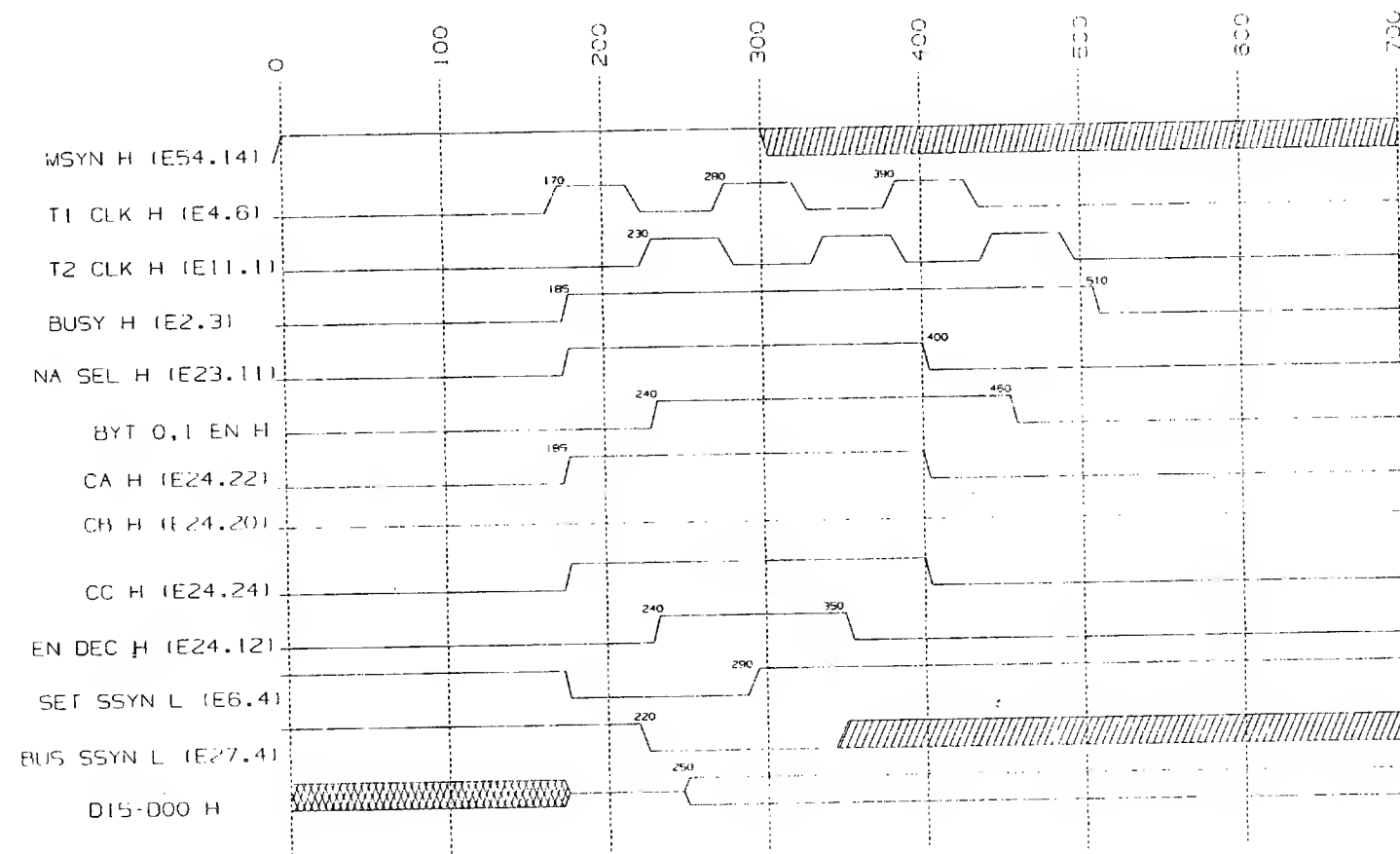
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D:\D:\MS11-P-DBU

C

B

A



(DATO, CSR)

| REVISIONS |           |     |
|-----------|-----------|-----|
| CHK       | CHANGE NO | REV |
|           |           |     |

|                         |  |           |  |            |  |     |
|-------------------------|--|-----------|--|------------|--|-----|
| TITLE                   |  | SIZE/CODE |  | NUMBER     |  | REV |
| MEMORY SYSTEM<br>TIMING |  | D TO      |  | MS11-P-DBU |  |     |
| SCALE                   |  | SHEET     |  | DIST       |  |     |
| NONE                    |  | 5 OF 6    |  |            |  | A   |

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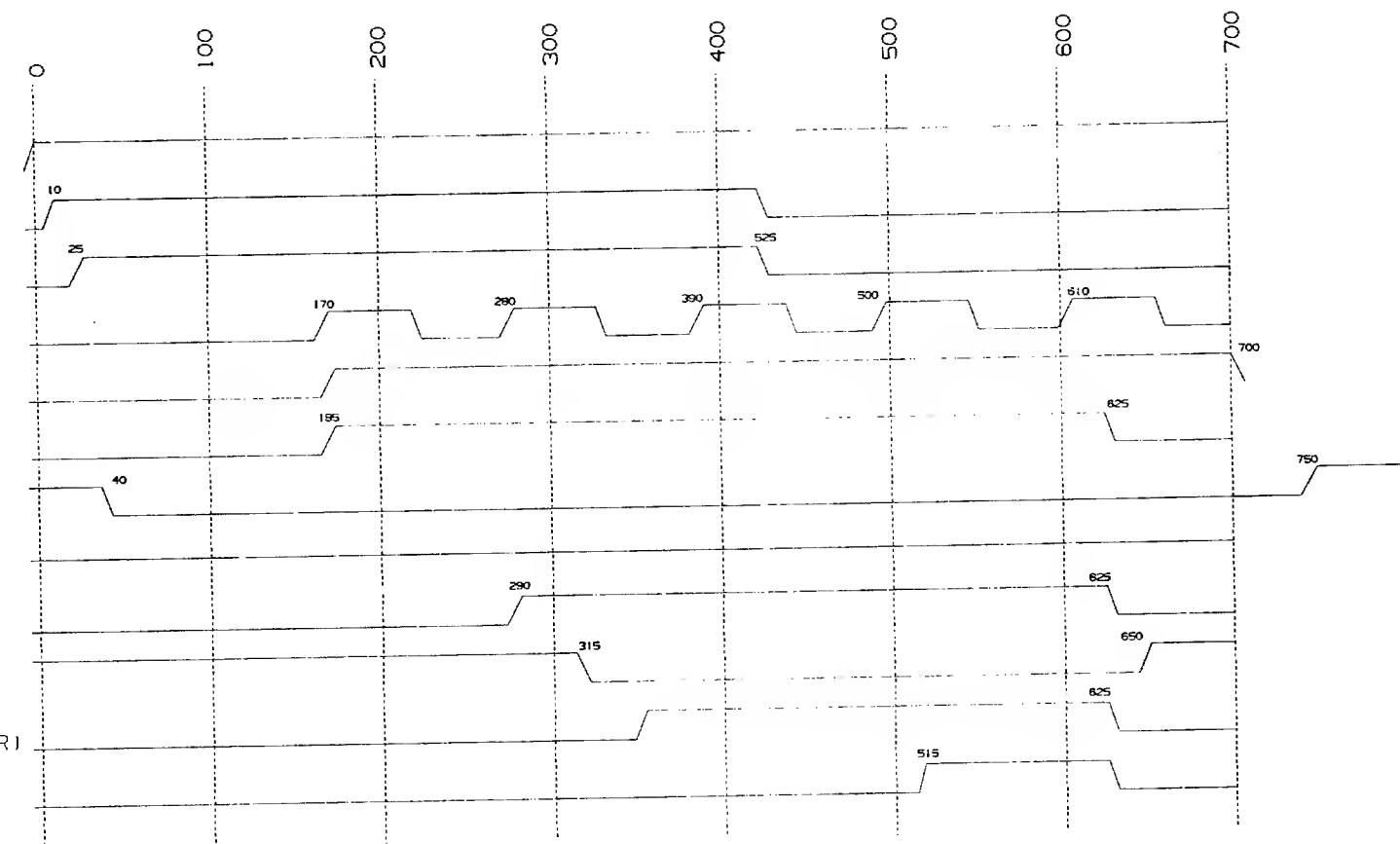
MS11-P-DBU  
V  
A

C

B

A

REF OSC H (E41.3)  
REF REQ H (E9.2)  
REF CY H (E16.18)  
T1 CLK H (E4.6)  
BUSY H (E2.3)  
NA SEL H (E23.11)  
SEL/INIT H (E26.2)  
ROW/COL H (E35.14)  
RAS TIM H (E45.13)  
RAS L (E45.12)  
E57.1 (REFRESH COUNTER)  
CLR REF H (E11.9)



(REFRESH TIMING)

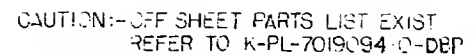
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|        |  |               |           |            |      |
|--------|--|---------------|-----------|------------|------|
| TITLE  |  | MEMORY SYSTEM | SIZE CODE | NUMBER     | REV  |
| TIMING |  |               | D         | MS11-P-DBU | A    |
| SCALE  |  | NONE          | SHEET     | 6          | OF 6 |



NOTES:

1. ALL FANS TO BE ORIENTED AS SHOWN-  
CONNECTORS TOWARD BOTTOM

[illegible]

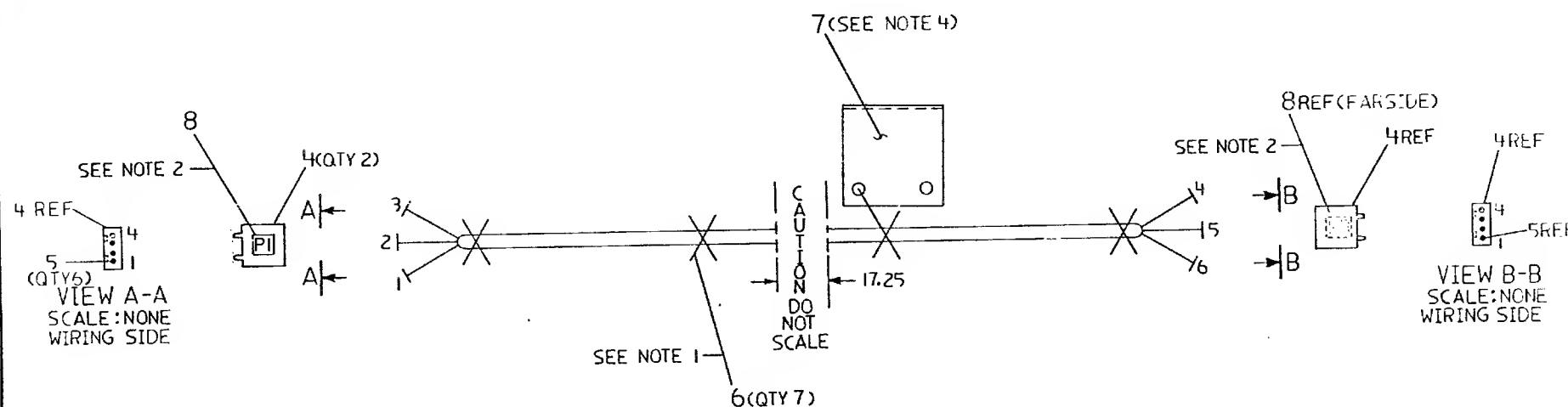
| LINE ITEM |   | DOCUMENT NUMBER    | PART NUMBER | DESCRIPTION                      | QUANTITY PER VARIATION<br>00 |
|-----------|---|--------------------|-------------|----------------------------------|------------------------------|
| 1         | 1 |                    | 1213185-03  | FAN,TURE AXIAL 4.5" 70CFM 115V   | 4                            |
| 2         | 2 | E-MD-7426390-0-DBU | 7426390-01  | PLATE,FAN                        | 1                            |
| 3         | 3 |                    | 9009165-00  | CLIP, FAN MOUNTING (12-05033 FAN | 16                           |
| 4         | 4 |                    | 9006026-01  | SCREW,MACH PAN PHIL 6-           | 16                           |
| 5         | 5 |                    | 1210263-00  | GUARD,FINGER 4.125 X 4.125 MTG H | 4                            |
| 6         | 6 |                    | 3612680-00  | DECAL, GROUND SIGN PER 386 *     | 1                            |
| 7         | 7 |                    | 9006633-00  | WASHER,LOCK INTERNAL STEEL       | 16                           |

|   |               |     |                          |  |                       |                      |                  |      |               |     |
|---|---------------|-----|--------------------------|--|-----------------------|----------------------|------------------|------|---------------|-----|
| REVISION HISTORY  |               |     | BASIC PART NO: 7019094   |  | DRN: S.CORCORAN       | DATE: 18-FEB-82      | D I G I T A L    |      |               |     |
| ENG   | ECO NUMBER    | REV | SECTION A OF A           |  | CHK'D: J. F. Larkins  | DATE: 22-MAR-84      | TITLE PARTS LIST |      |               |     |
| ---   | INITIAL       | A   | SECTION. VARIATION INDEX |  | E. CLARK              | DATE: 26-JAN-83      | FAN PLATE ASSY   |      |               |     |
| ML  | 7019094-MK001 | B   | [A] 00                   |  |                       |                      |                  |      |               |     |
|   |               |     | [B]                      |  | DES.ENG.: M.COANELL   | DATE: 26-JAN-83      |                  |      |               |     |
|   |               |     | [C]                      |  | RESP.ENG.: J.BUZYNSKI | DATE: 26-JAN-83      | DOCUMENT NUMBER  |      |               |     |
|   |               |     | [D]                      |  |                       |                      | SIZE             | CODE | NUMBER        | REV |
|   |               |     | [E]                      |  | MFG.ENG.: R.WHITE     | DATE: 26-JAN-83      | K                | PL   | 7019094-0-DBP | B   |
|   |               |     | [F]                      |  | ASSEMBLY NUMBER:      | TOP DOCUMENT NUMBER: | FILE NAME:       |      | EDIT #        |     |
|   |               |     |                          |  | E-AD-7019094-0-0      | MK-00-7019937-0      | MK1092.PLS       |      | 2             |     |
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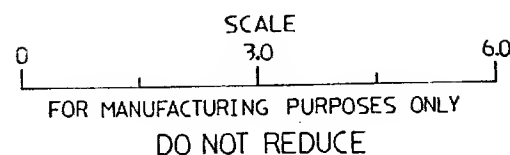
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
| WIRE TABLE  |     |       |        |       |      |       |      |       |      |       |      | REMARKS          |
|-------------|-----|-------|--------|-------|------|-------|------|-------|------|-------|------|------------------|
| DISCRIPTION |     |       |        | FROM  |      |       |      | TO    |      |       |      |                  |
| ITEM NO     | AWG | COLOR | LENGTH | POINT | CONN | STRIP | TERM | POINT | CONN | STRIP | TERM |                  |
| 3           | 18  | BLU   | 28.5   | 1     | PI-1 | .19   | 5    | 6     | P2-1 | .19   | 5    | SEE<br>NOTE<br>3 |
| 1           | 18  | BLK   | 28.5   | 2     | PI-2 | .19   | 5    | 5     | P2-2 | .19   | 5    |                  |
| 2           | 18  | ORN   | 28.5   | 3     | PI-3 | .19   | 5    | 4     | P2-3 | .19   | 5    |                  |

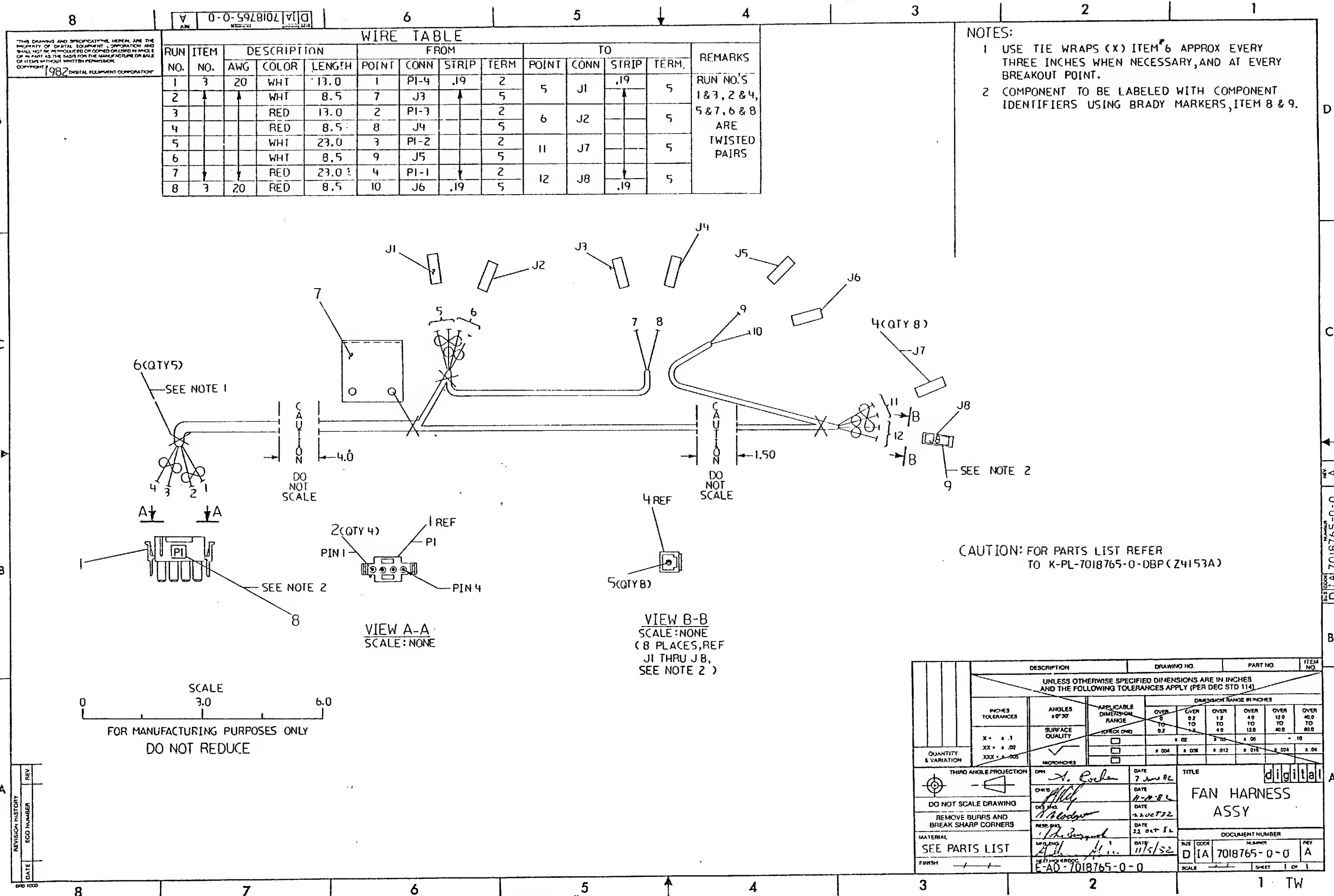
1. USE TIE WRAPS (X) ITEM 6 APPROX. EVERY THREE (3) INCHES.
2. CONNECTORS TO BE LABELED WITH COMPONENT IDENTIFIERS USING DECALS (ITEM 8).
3. UNLESS OTHERWISE NOTED ALL LENGTHS ARE IN INCHES  $\pm$  1.0.
4. ATTACH LABEL ITEM 7 APPROX. 8 INCHES FROM P2.



CAUTION: FOR PARTS LIST REFER  
TO K-PL-7018768-0-DBP,  
(Z4156A)



| <table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>                                  |   |   |  |   | DESCRIPTION   |   | DRAWING NO.   |  | PART NO. |               | ITEM NO.        |                 |                  |                   |                   |       |       |       |       |       |       |
|---|---|---|--|---|---|---|---|--|----------|---------------|-----------------|-----------------|------------------|-------------------|-------------------|-------|-------|-------|-------|-------|-------|
|   |   |   |  |   |   |   |   |  |          |               |                 |                 |                  |                   |                   |       |       |       |       |       |       |
|   | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114) |   |  |   |   |   |   |  |          |               |                 |                 |                  |                   |                   |       |       |       |       |       |       |
| INCHES<br>TOLERANCES<br><br>X = ± .1<br>XX = ± .02<br>XXX = ± .005  |   | ANGLES<br>± 0° 30'<br><br>SURFACE QUALITY<br><br>MICROINCHES |  | APPLICABLE<br>DIMENSION<br>RANGE<br>(CHECK ONE)<br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> |   | DIMENSION RANGE IN INCHES<br><table border="1"> <tr> <th>OVER 0 TO .02</th> <th>OVER .02 TO 1.2</th> <th>OVER 1.2 TO 4.0</th> <th>OVER 4.0 TO 12.0</th> <th>OVER 12.0 TO 40.0</th> <th>OVER 40.0 TO 80.0</th> </tr> <tr> <td>± .02</td> <td>± .03</td> <td>± .05</td> <td>± .10</td> <td>± .04</td> <td>± .06</td> </tr> </table> |   |  |          | OVER 0 TO .02 | OVER .02 TO 1.2 | OVER 1.2 TO 4.0 | OVER 4.0 TO 12.0 | OVER 12.0 TO 40.0 | OVER 40.0 TO 80.0 | ± .02 | ± .03 | ± .05 | ± .10 | ± .04 | ± .06 |
| OVER 0 TO .02   | OVER .02 TO 1.2   | OVER 1.2 TO 4.0   | OVER 4.0 TO 12.0   | OVER 12.0 TO 40.0   | OVER 40.0 TO 80.0   |   |   |  |          |               |                 |                 |                  |                   |                   |       |       |       |       |       |       |
| ± .02   | ± .03   | ± .05   | ± .10  | ± .04   | ± .06   |   |   |  |          |               |                 |                 |                  |                   |                   |       |       |       |       |       |       |
| QUANTITY & VARIATION  |   |   |  |   |   |   |   |  |          |               |                 |                 |                  |                   |                   |       |       |       |       |       |       |
| THIRD ANGLE PROJECTION<br> |   |   | DWN<br><br>CK'D<br><br>DES. BY<br><br>REVD BY<br><br>INFO ENG. |   | DATE<br>18 Feb 82<br>DATE<br>11-10-94<br>DATE<br>2-2-95<br>DATE<br>22 Oct 92<br>DATE<br>11-7-92 |   | TITLE<br><div style="border: 1px solid black; padding: 5px; display: inline-block;">digital</div><br>15V PWR<br>HARNESS |  |          |               |                 |                 |                  |                   |                   |       |       |       |       |       |       |
| DO NOT SCALE DRAWING<br>REMOVE BURRS AND<br>BREAK SHARP CORNERS<br>MATERIAL<br>SEE PARTS LIST                   |   |   | NEXT HIGHER DOC<br>E-AD-7018762-0-0  |   | SIZE CODE NUMBER REV.<br>D IA 7018768-0-0 A<br>SCALE 1:1 SHEET 1 OF 1                           |   |   |  |          |               |                 |                 |                  |                   |                   |       |       |       |       |       |       |



| WIRE TABLE |          |             |       |        |       |      |       |      |       |      |       |      |
|------------|----------|-------------|-------|--------|-------|------|-------|------|-------|------|-------|------|
| RUN NO.    | ITEM NO. | DESCRIPTION |       |        | FROM  |      |       |      | TO    |      |       |      |
|            |          | AWG         | COLOR | LENGTH | POINT | CONN | STRIP | TERM | POINT | CONN | STRIP | TERM |
| 1          | 3        | 20          | WHT   | 13.0   | 1     | PI-4 | .19   | 2    | 5     | J1   | .19   | 5    |
| 2          | ↑        | ↑           | WHT   | 8.5    | 7     | J3   | ↑     | 5    | 6     | J2   | ↑     | 5    |
| 3          | ↑        | ↑           | RED   | 13.0   | 2     | PI-3 | ↑     | 2    | 11    | J7   | ↑     | 5    |
| 4          | ↑        | ↑           | RED   | 8.5    | 8     | J4   | ↑     | 5    | 12    | J8   | ↑     | 5    |
| 5          | ↑        | ↑           | WHT   | 23.0   | 3     | PI-2 | ↑     | 2    |       |      |       |      |
| 6          | ↑        | ↑           | WHT   | 8.5    | 9     | J5   | ↑     | 5    |       |      |       |      |
| 7          | ↑        | ↑           | RED   | 23.0   | 4     | PI-1 | ↑     | 2    |       |      |       |      |
| 8          | 3        | 20          | RED   | 8.5    | 10    | J6   | .19   | 5    |       |      |       |      |

- NOTES:
- 1 USE TIE WRAPS (X) ITEM #6 APPROX EVERY THREE INCHES WHEN NECESSARY, AND AT EVERY BREAKOUT POINT.
  - 2 COMPONENT TO BE LABELED WITH COMPONENT IDENTIFIERS USING BRADY MARKERS, ITEM 8 & 9.

| REV. | DATE | ECO NUMBER |
|------|------|------------|
|      |      |            |

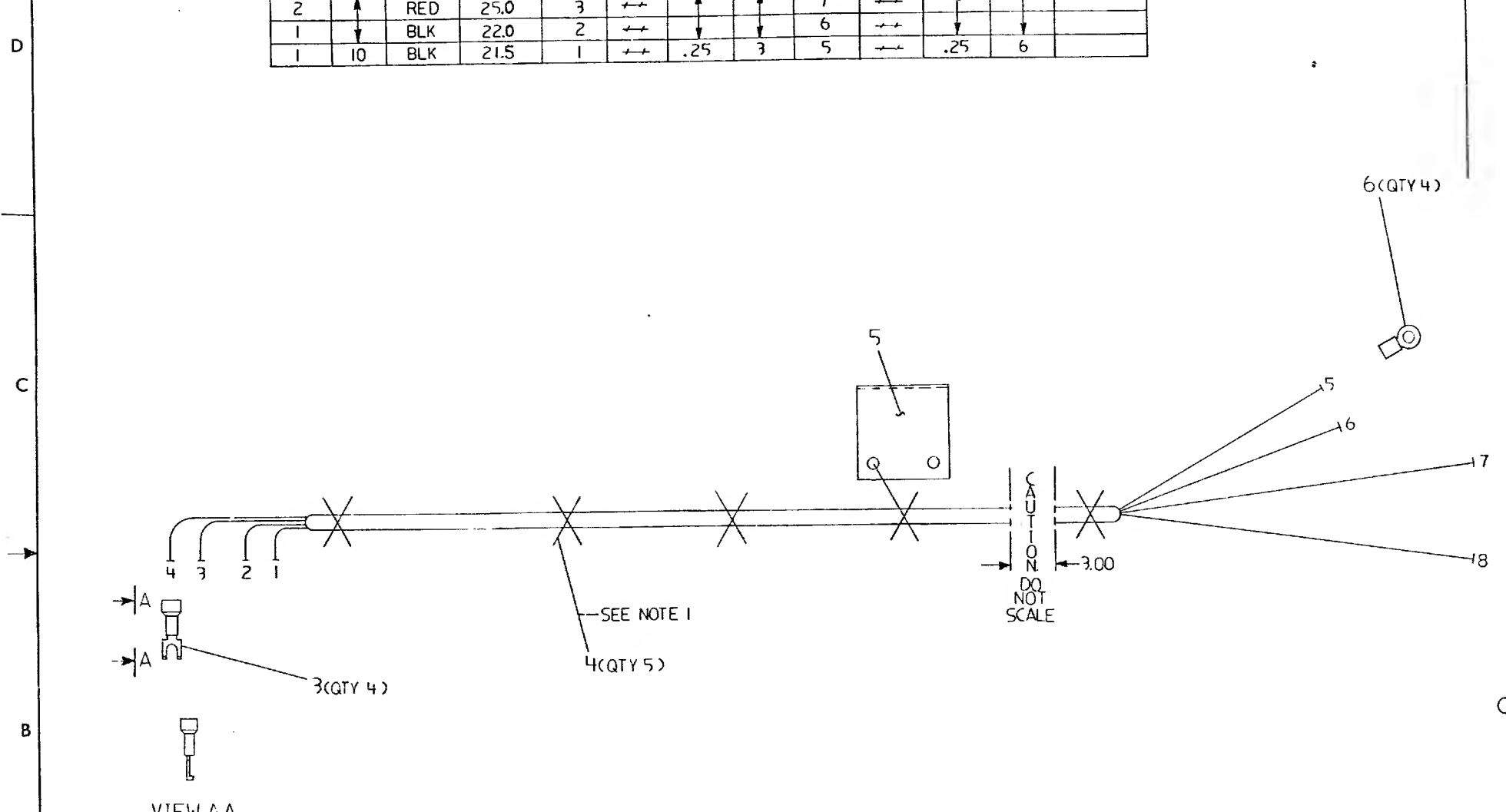
|  |  |                                      |  |                            |  |                  |  |
|--|--|--------------------------------------|--|----------------------------|--|------------------|--|
| DESCRIPTION  |  | DRAWING NO.                          |  | PART NO.                   |  | ITEM NO.         |  |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114) |  |                                      |  |                            |  |                  |  |
| INCHES TOLERANCES  |  | ANGLES ±0°30'                        |  | APPLICABLE DIMENSION RANGE |  |                  |  |
| X = ±.1  |  | SURFACE QUALITY                      |  | DIMENSION RANGE IN INCHES  |  |                  |  |
| XX = ±.02  |  | MICRONICHES                          |  | OVER 0 TO 0.2              |  |                  |  |
| XXX = ±.005  |  |                                      |  | OVER 0.2 TO 0.5            |  |                  |  |
| QUANTITY & VARIATION   |  | THIRD ANGLE PROJECTION               |  | DATE 7 June 82             |  | TITLE            |  |
| DO NOT SCALE DRAWING   |  | REMOVE BURRS AND BREAK SHARP CORNERS |  | DATE 11/5/82               |  | FAN HARNESS ASSY |  |
| MATERIAL   |  | SEE PARTS LIST                       |  | DATE 11/5/82               |  | DOCUMENT NUMBER  |  |
| FINISH   |  | E-AD-7018765-0-0                     |  | DATE 11/5/82               |  | DIA 7018765-0-0  |  |



| DRAWING NO. 7018767-0-0 |             |       |        |       |      |       |      |       |      |       |      |         |
|-------------------------|-------------|-------|--------|-------|------|-------|------|-------|------|-------|------|---------|
| ITEM NO                 | DESCRIPTION |       |        | FROM  |      |       |      | TO    |      |       |      | REMARKS |
|                         | AWG         | COLOR | LENGTH | POINT | CONN | STRIP | TERM | POINT | CONN | STRIP | TERM |         |
| 2                       | 10          | RED   | 25.5   | 4     | ---  | .25   | 3    | 8     | ---  | .25   | 6    |         |
| 2                       | ↑           | RED   | 25.0   | 3     | ---  | ↑     | ↑    | 7     | ---  | ↑     | ↑    |         |
| 1                       | ↓           | BLK   | 22.0   | 2     | ---  | ↓     | ↓    | 6     | ---  | ↓     | ↓    |         |
| 1                       | 10          | BLK   | 21.5   | 1     | ---  | .25   | 3    | 5     | ---  | .25   | 6    |         |

NOTE:

1 USE TIE WRAPS (X), ITEM 4, APPROX AS SHOWN, WHEN NECESSARY, AND AT EVERY BREAKOUT POINT.



CAUTION: FOR PARTS LIST REFER TO K-PL-7018767-0-DBP, (Z4155)

| REV | DATE    | BY          | CHKD | APP'D |
|-----|---------|-------------|------|-------|
| 1   | 10/1/82 | J. M. O. J. |      |       |
| 2   | 11/1/82 | B. M. J.    |      |       |
| 3   | 11/1/82 | B. M. J.    |      |       |

|  |                        |                            |                           |                 |                  |                   |                   |
|--|------------------------|----------------------------|---------------------------|-----------------|------------------|-------------------|-------------------|
| DESCRIPTION  |                        | DRAWING NO.                |                           | PART NO.        |                  | ITEM NO.          |                   |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114) |                        |                            |                           |                 |                  |                   |                   |
| INCHES TOLERANCES  | ANGLES                 | APPLICABLE DIMENSION RANGE | DIMENSION RANGE IN INCHES |                 |                  |                   |                   |
|  |                        |                            | OVER 0 TO 1.2             | OVER 1.2 TO 4.0 | OVER 4.0 TO 12.0 | OVER 12.0 TO 40.0 | OVER 40.0 TO 80.0 |
| .X = ± .1  | ± 30°                  | ICHECK ONE                 | ± .02                     | ± .03           | ± .05            | ± .10             |                   |
| XX = ± .02   | SURFACE QUALITY        |                            | ± .04                     | ± .06           | ± .08            | ± .12             | ± .16             |
| XXX = ± .006   |                        |                            |                           |                 |                  |                   |                   |
| QUANTITY & VARIATION   | THIRD ANGLE PROJECTION | DATE                       | TITLE                     |                 |                  |                   |                   |
|  |                        | 17 Feb 82                  | 5V PWR HARNESS            |                 |                  |                   |                   |
| DO NOT SCALE DRAWING   | DATE                   | DOCUMENT NUMBER            |                           |                 |                  |                   |                   |
| REMOVE BURRS AND BREAK SHARP CORNERS   | 22 Feb 82              | DIA 7018767-0-0            |                           |                 |                  |                   |                   |
| MATERIAL   | DATE                   | SCALE                      |                           |                 |                  |                   |                   |
| SEE PARTS LIST   | 11/1/82                | SHEET 1 OF 1               |                           |                 |                  |                   |                   |
| FINISH   | DATE                   | REV B                      |                           |                 |                  |                   |                   |
|  | 11/1/82                | E-AD-7018762-0-0           |                           |                 |                  |                   |                   |

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\*\*\* DRAWING DIRECTORY \*\*\*

| UNIT VARIATIONS |                    |
|-----------------|--------------------|
| VAR             | TITLE              |
| BC17C-10        | CABLE, 10 FT LONG  |
| BC17C-25        | CABLE, 25 FT LONG  |
| BC17C-35        | CABLE, 35 FT LONG  |
| BC17C-50        | CABLE, 50 FT LONG  |
| BC17C-75        | CABLE, 75 FT LONG  |
| BC17C-A0        | CABLE, 100 FT LONG |
| BC17C-B0        | CABLE, 200 FT LONG |
| BC17C-B5        | CABLE, 250 FT LONG |
|                 |                    |
|                 |                    |
|                 |                    |
|                 |                    |
|                 |                    |
|                 |                    |

USED ON OPTION/MODEL  
DECSA

DRN.  
R.J. RILEY

DATE  
7-27-83

CHK'D  
R.J. RILEY

DATE  
7-27-83

PROJ. ENG.  
J. BUZYNSKI

DATE  
7-27-83

PROD.  
B. SWAN

DATE  
7-27-83

SHEET 1 OF 2

d i g i t a l

TITLE:  
CABLE, MODEM EXTENSION

| SIZE  | CODE | NUMBER      | REV |
|-------|------|-------------|-----|
| K     | DD   | BC17C-0-DBF | A   |
| DIST. |      |             |     |

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\*\*\* DRAWING DIRECTORY \*\*\*

| UNIT VARIATIONS |                    |
|-----------------|--------------------|
| VAR             | TITLE              |
| BC17D-02        | CABLE, 2 FT LONG   |
| BC17D-10        | CABLE, 10 FT LONG  |
| BC17D-25        | CABLE, 25 FT LONG  |
| BC17D-50        | CABLE, 50 FT LONG  |
| BC17D-A0        | CABLE, 100 FT LONG |
|                 |                    |
|                 |                    |
|                 |                    |
|                 |                    |
|                 |                    |
|                 |                    |
|                 |                    |
|                 |                    |
|                 |                    |
|                 |                    |

|   |  |  |                      |                   |         |             |     |
|---|--|--|----------------------|-------------------|---------|-------------|-----|
|   |  |  | USED ON OPTION/MODEL | DRN.              | DATE    |             |     |
|   |  |  | DECSA                | R.J. RILEY        | 7-27-83 |             |     |
|   |  |  |                      | CHK'D             | DATE    |             |     |
|   |  |  |                      | R.J. RILEY        | 7-27-83 |             |     |
|   |  |  |                      | PROJ. ENG.        | DATE    |             |     |
|   |  |  |                      | J. BUZYNSKI       | 7-27-83 |             |     |
|   |  |  |                      | PROD.             | DATE    |             |     |
|   |  |  |                      | B. SWAN           | 7-27-83 |             |     |
|   |  |  | SHEET 1 OF 2         | d i g i t a l     |         |             |     |
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|   |  |  |                      | CABLE, NULL MODEM |         |             |     |
|   |  |  |                      | SIZE              | CODE    | NUMBER      | REV |
|   |  |  |                      | K                 | DD      | BC17D-0-DBF | A   |
|   |  |  |                      | DIST.             |         |             |     |

[illegible]

8

7

6

5

4

3

2

1

REV  
A

NUMBER  
DAD BC17D-0-0

SIZE CODE  
3000 3215

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WIRE TABLE

| TO          |      | FROM     |      | REMARKS        |
|-------------|------|----------|------|----------------|
| CONN        | WITH | CONN     | WITH |                |
| PI-1        |      | P2-1     |      |                |
| PI-2        |      | P2-3     |      |                |
| PI-3        |      | P2-2     |      |                |
| PI-4        |      | P2-8     |      |                |
| PI-4        |      | PI-5     |      |                |
| PI-6        |      | P2-20    |      |                |
| PI-6        |      | PI-22    |      |                |
| PI-7        |      | P2-7     |      |                |
| PI-8        |      | P2-4     |      |                |
| P2-4        |      | P2-5     |      |                |
| PI-20       |      | P2-6     |      |                |
| P2-6        |      | P2-22    |      |                |
| PI-15       |      | P2-17    |      | CONDUCTOR      |
| PI-15       |      | PI-24    |      |                |
| PI-15 DRAIN |      | PI-7     |      | DRAIN (NOTE 1) |
| PI-17       |      | P2-15    |      |                |
| P2-15       |      | P2-24    |      |                |
| PI-17 DRAIN |      | PI-7     |      | DRAIN (NOTE 1) |
| PI-SHELL    |      | P2-SHELL |      | OUTER SHIELD   |
| P2-15 DRAIN |      | P2-7     |      | DRAIN (NOTE 1) |
| P2-17 DRAIN |      | P2-7     |      | DRAIN (NOTE 1) |

LEGEND

| PART NO  | DIM X  |
|----------|--------|
| BC17D-2  | 2 FT   |
| -10      | 10 FT  |
| -25      | 25 FT  |
| -50      | 50 FT  |
| BC17D-AØ | 100 FT |

NOTES:

1. WIRES FROM PI-15 TO P2-17 AND PI-17 TO P2-15 ARE INTERNALLY SHIELDED WIRES WITH THEIR DRAIN WIRES CONNECTED TO PI-7 & P2-7.

PI

X REF.

P2

CAUTION: SEE OFF SHEET PARTS LIST K-PL-BC17D-0-DRP (Z4145A)

| QUANTITY & VARIATION | THIRD ANGLE PROJECTION | DATE       | TITLE             |
|----------------------|------------------------|------------|-------------------|
|                      |                        | 6-14-82    | CABLE, NULL MODEM |
|                      |                        | 17 Sept 83 |                   |
|                      |                        | 1-Sept-83  |                   |
|                      |                        | 1-Sept-83  |                   |
|                      |                        | 1-Sept-83  |                   |
|                      |                        | 1-Sept-83  |                   |

DO NOT SCALE DRAWING

REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL SEE PARTS LIST

FINISH

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114)

| INCHES TOLERANCES | ANGLES ±0°30' | SURFACE QUALITY | APPLICABLE DIMENSION RANGE | OVER 0 TO 0.2 | OVER 0.2 TO 1.2 | OVER 1.2 TO 4.0 | OVER 4.0 TO 12.0 | OVER 12.0 TO 40.0 | OVER 40.0 TO 80.0 |
|-------------------|---------------|-----------------|----------------------------|---------------|-----------------|-----------------|------------------|-------------------|-------------------|
| X = ±.1           |               |                 | (CHECK ONE)                | ±.02          | ±.05            | ±.10            | ±.05             | ±.10              | ±.04              |
| XX = ±.02         |               |                 |                            | ±.004         | ±.008           | ±.012           | ±.016            | ±.024             | ±.04              |
| XXX = ±.005       |               |                 |                            |               |                 |                 |                  |                   |                   |

DOCUMENT NUMBER

DAD BC17D-0-0

SCALE NONE

SHEET 1 OF 1

| REV | ECO NUMBER | DATE |
|-----|------------|------|
|     |            |      |

REV  
A  
NUMBER  
DAD BC17D-0-0  
SIZE CODE  
3000 3215

digital

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\*\*\* DRAWING DIRECTORY \*\*\*

[illegible]

|                      |  |             |         |
|----------------------|--|-------------|---------|
| USED ON OPTION/MODEL |  | DRN.        | DATE    |
| DECSA                |  | R.J. RILEY  | 7-27-83 |
|                      |  | CHK'D       | DATE    |
|                      |  | R.J. RILEY  | 7-27-83 |
|                      |  | PROJ. ENG.  | DATE    |
|                      |  | J. BUZYNSKI | 7-27-83 |
|                      |  | PROD.       | DATE    |
|                      |  | B. SWAN     | 7-27-83 |
| SHEET 1 OF 2         |  | digital     |         |

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|                   |      |             |  |     |  |
|-------------------|------|-------------|--|-----|--|
| TITLE:            |      |             |  |     |  |
| CABLE, NULL MODEM |      |             |  |     |  |
| SIZE              | CODE | NUMBER      |  | REV |  |
| K                 | DD   | BC17L-0-DBF |  | A   |  |
| DIST.             |      |             |  |     |  |



[illegible]

8

7

6

5

4

3

2

1

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LEGEND

| FROM        | TO   | REMARKS  |      |  |
|-------------|------|----------|------|--|
| CONN        | WITH | CONN     | WITH |  |
| P2-1        |      | P1-1     |      |  |
| P2-2        |      | P1-2     |      |  |
| P2-3        |      | P1-3     |      |  |
| P2-4        |      | P1-4     |      |  |
| P2-5        |      | P1-5     |      |  |
| P2-6        |      | P1-6     |      |  |
| P2-7        |      | P1-7     |      |  |
| P2-8        |      | P1-8     |      |  |
| P2-9        |      | P1-9     |      |  |
| P2-10       |      | P1-10    |      |  |
| P2-11       |      | P1-11    |      |  |
| P2-12       |      | P1-12    |      |  |
| P2-13       |      | P1-13    |      |  |
| P2-14       |      | P1-14    |      |  |
| P2-15       |      | P1-15    |      |  |
| P2-16       |      | P1-16    |      |  |
| P2-17       |      | P1-17    |      |  |
| P2-18       |      | P1-18    |      |  |
| P2-19       |      | P1-19    |      |  |
| P2-20       |      | P1-20    |      |  |
| P2-21       |      | P1-21    |      |  |
| P2-22       |      | P1-22    |      |  |
| P2-23       |      | P1-23    |      |  |
| P2-24       |      | P1-24    |      |  |
| P2-25       |      | P1-25    |      |  |
| P1-15 DRAIN |      | P1-7     |      |  |
| P2-15 DRAIN |      | P2-7     |      |  |
| P1-17 DRAIN |      | P1-7     |      |  |
| P2-17 DRAIN |      | P2-7     |      |  |
| P1-24 DRAIN |      | P1-7     |      |  |
| P1-24 DRAIN |      | P2-7     |      |  |
| P1 SHELL    |      | P2 SHELL |      |  |

LEGEND

| PART NO. | DIM "X" |
|----------|---------|
| BC17L-4  | 4 FT    |

NOTE:

1. WIRES FROM P1-15 TO P2-15, P1-17 TO P2-17, AND P1-24 TO P2-24 ARE INTERNALLY SHIELDED WIRES WITH THEIR DRAIN WIRES CONNECTED TO TO P1-7 & P2-7.

P1

P2

X REF

CAUTION:SEE OFF SHEET PARTS LIST  
K-PL-BC17L-0-DBP.(Z7732A)

REVISION HISTORY

| REV | ECO NUMBER | DATE |
|-----|------------|------|
|     |            |      |
|     |            |      |
|     |            |      |

DESCRIPTION

DRAWING NO.

PART NO.

ITEM NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114)

INCHES TOLERANCES

ANGLES ±0° 30'

APPLICABLE DIMENSION RANGE (CHECK ONE)

SURFACE QUALITY

DIMENSION RANGE IN INCHES

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

DO NOT SCALE DRAWING

REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

SEE PARTS LIST

FINISH

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

TITLE

DOCUMENT NUMBER

SCALE

SHEET

OF

digital

CABLE, EXTENSION MODEM

BC17L-0-0

A

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[illegible]

|           |            |   |  |
|-----------|------------|---|--|
| REVISIONS | REV.       |   |  |
|           | CHANGE NO. |   |  |
|           | ORIGINATED | A |  |
|           | CHK        |   |  |
|           |            |   |  |
|           |            |   |  |
|           |            |   |  |
|           |            |   |  |

|                      |  |               |             |   |      |         |  |  |  |     |  |  |
|----------------------|--|---------------|-------------|---|------|---------|--|--|--|-----|--|--|
| USED ON OPTION/MODEL |  | DRN.          | DATE        | TITLE<br><div style="text-align: right; font-size: 2em;">digital</div><br>CABLE, NULL MODEM |      |         |  |  |  |     |  |  |
| BC22D                |  | S. ZYLAK      | 14 MAR 1982 |   |      |         |  |  |  |     |  |  |
|                      |  | CHK'D.        | DATE        |   |      |         |  |  |  |     |  |  |
|                      |  | J. Faller     | 13 APR 82   |   |      |         |  |  |  |     |  |  |
|                      |  | PROJ. ENG.    | DATE        |   |      |         |  |  |  |     |  |  |
|                      |  | R. Harrington | 13 APR 82   | SIZE  | CODE | NUMBER  |  |  |  | REV |  |  |
|                      |  | PROD.         | DATE        | B   | DD   | BC22D-Ø |  |  |  | A   |  |  |
| SHEET 1 OF 2         |  | M. J. ...     | 3 MAY 82    | DIST.   |      |         |  |  |  |     |  |  |




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## LEGEND

| NUMBER   | VARIATION  | DIM "X" | DIM "Y" REF |
|----------|------------|---------|-------------|
| BC22D-10 | 1700313-01 | 10 FT.  |             |
| BC22D-25 | 1700313-02 | 25 FT.  |             |
| BC22D-35 | 1700313-03 | 35 FT.  |             |
| BC22D-50 | 1700313-04 | 50 FT.  |             |
| BC22D-75 | 1700313-05 | 75 FT.  |             |
| BC22D-A0 | 1700313-06 | 100 FT. |             |
| BC22D-A5 | 1700313-07 | 150 FT. |             |
| BC22D-B0 | 1700313-08 | 200 FT. |             |
| BC22D-B5 | 1700313-09 | 250 FT. |             |

## WIRE TABLE

| ITEM NO.        | PAIR NO.  | DESCRIPTION |       | TO       |      | FROM     |      | REMARKS             |
|-----------------|---|-------------|-------|----------|------|----------|------|---------------------|
|                 |   | AWG         | COLOR | CONN     | WITH | CONN     | WITH |                     |
| 2<br>THRU<br>10 |  | 24          | BLK   | PI-1     |      | P2-1     |      |                     |
|                 |   |             | BRN   | PI-2     |      | P2-3     |      |                     |
|                 |   |             | RED   | PI-3     |      | P2-2     |      |                     |
|                 |   |             | ORN   | PI-6     |      | P2-20    |      |                     |
|                 |   |             | YEL   | PI-7     |      | P2-7     |      |                     |
|                 |   |             | GRN   | PI-20    |      | P2-6     |      |                     |
|                 |   | 24          | —     | PI-SHELL |      | P2-SHELL |      | SHIELD & DRAIN WIRE |

NOTES:

1. FOR CABLE CONFIGURATION REFER TO A-PS-1700313-0-0.

|   |                                     |                                |                            |                          |                           |
|---|-------------------------------------|--------------------------------|----------------------------|--------------------------|---------------------------|
| DESCRIPTION   |                                     | DWG./PART NO.                  |                            | ITEM NO.                 |                           |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES |                                     |                                |                            |                          |                           |
| ANGLES<br>± 0° 30'                                  | CLASS OF<br>ACCURACY<br>(CHECK ONE) | NOMINAL DIMENSION RANGE INCHES |                            |                          |                           |
| SURFACE<br>QUALITY IN<br>MICROINCHES                | MEDIUM <input type="checkbox"/>     | OVER<br>TO<br>0.2              | OVER<br>0.2<br>TO<br>1.2   | OVER<br>1.2<br>TO<br>4.0 | OVER<br>4.0<br>TO<br>12.0 |
|   | PREFERRED <input type="checkbox"/>  | OVER<br>12.0<br>TO<br>40.0     | OVER<br>40.0<br>TO<br>80.0 |                          |                           |
| QUANTITY & VARIATION                                |                                     |                                |                            |                          |                           |
| THIRD ANGLE PROJECTION                              |                                     | FIRST USED ON                  |                            |                          |                           |
| REMOVE BURRS AND<br>BREAK SHARP CORNERS             |                                     | TITLE                          |                            |                          |                           |
| DO NOT SCALE DWG                                    |                                     | CABLE,<br>NULL MODEM           |                            |                          |                           |
| MATERIAL  |                                     | B-DD-BC22D-0                   |                            |                          |                           |
| FINISH  |                                     | SCALE NONE                     |                            |                          |                           |
|   |                                     | SHEET OF                       |                            |                          |                           |
|   |                                     | DIST.                          |                            |                          |                           |

|            |      |   |
|------------|------|---|
| REVISIONS  | REV. | A |
| CHANGE NO. |      |   |
| ORIGINATED |      |   |
| CHK        |      |   |

DRB 100A

MK

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DRAWING DIRECTORY

| UNIT VARIATIONS |                     |
|-----------------|---------------------|
| variation       | title               |
| BC22E-02        | CABLE, 02 FEET LONG |
| BC22E-10        | CABLE, 10 FEET LONG |
| BC22E-25        | CABLE, 25 FEET LONG |
| BC22E-35        | CABLE, 35 FEET LONG |
| BC22E-50        | CABLE, 50 FEET LONG |
| BC22E-75        | CABLE, 75 FEET LONG |

| REVISION HISTORY |             |     | USED ON OPTION/MODEL | RESPONSIBLE ENGR. : J. FLIS<br>DATE: 15 MAR 82  | d i g i t a l     | TITLE: DRAWING DIRECTORY                         |
|------------------|-------------|-----|----------------------|---|-------------------|--|
| ENG              | ECO NUMBER  | REV |                      |   |                   |  |
| ---              | INITIAL     | A   | BC22E                | MADE BY : S. ZYLAK<br>DATE: 15 MAR 82           | CABLE, NULL MODEM | SIZE CODE DOCUMENT NUMBER REV.<br>K DD BC22E-0 B |
| SA               | BC22E-MK001 | B   |                      | CHECKED BY : J. FALKOWSKI<br>DATE: 12 APR 82    |                   |  |
|                  |             |     |                      | DESIGN ENGINEER : J. FLIS<br>DATE: 16 APR 82    |                   |  |
|                  |             |     |                      | PRODUCTION ENGR. : W. LADNER<br>DATE: 13 MAY 82 |                   |  |
| SHEET 1 OF 2     |             |     |                      |   |                   | MXO  |



|   |   |                               |  |  |   |   |   |  |
|---|---|-------------------------------|--|--|---|---|---|--|
| <div style="display: flex; justify-content: space-around;"> <div style="width: 10px; height: 10px;"></div> <div style="width: 10px; height: 10px;"></div> <div style="width: 10px; height: 10px;"></div> <div style="width: 10px; height: 10px;"></div> <div style="width: 10px; height: 10px;"></div> </div> | DESCRIPTION   |                               | DRAWING NO.  |  | PART NO.  |   | ITEM NO.  |  |
|   | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114) |                               |  |  |   |   |   |  |
|   | INCHES<br>TOLERANCES  | ANGLES<br>$\pm 0^{\circ} 30'$ | APPLICABLE<br>DIMENSION<br>RANGE<br>(CHECK ONE)  | DIMENSIONS RANGE IN INCHES   |   |   |   |  |
|   |   |                               |  | OVER<br>$\frac{1}{16}$<br>TO<br>$\frac{1}{8}$                                      | OVER<br>$\frac{1}{8}$<br>TO<br>$\frac{1}{4}$                              | OVER<br>$\frac{1}{4}$<br>TO<br>$\frac{3}{8}$                              | OVER<br>$\frac{3}{8}$<br>TO<br>$\frac{1}{2}$  | OVER<br>$\frac{1}{2}$<br>TO<br>$\frac{3}{4}$ |
| QUANTITY<br>& VARIATION   | X = $\pm .1$<br>.XX = $\pm .02$<br>.XXX = $\pm .005$  | SURFACE<br>QUALITY<br><br>    | <input type="checkbox"/> $\pm .02$<br><input type="checkbox"/> $\pm .004$<br><input type="checkbox"/> MICRONS                    | <input type="checkbox"/> $\pm .03$<br><input type="checkbox"/> $\pm .008$          | <input type="checkbox"/> $\pm .05$<br><input type="checkbox"/> $\pm .012$ | <input type="checkbox"/> $\pm .10$<br><input type="checkbox"/> $\pm .016$ | <input type="checkbox"/> $\pm .15$<br><input type="checkbox"/> $\pm .024$<br><input type="checkbox"/> $\pm .04$ |  |
| THIRD ANGLE PROJECTION<br>  |   |                               | DRWN: <i>S. Zak</i><br>CHKD: <i>J. Hahn</i><br>DES. ENG: <i>J. Hahn</i><br>RESP. ENG: <i>J. Hahn</i><br>MFG. ENG: <i>J. Hahn</i> | DATE: 11/11/82<br>DATE: 12/1/82<br>DATE: 12/1/82<br>DATE: 12/1/82<br>DATE: 12/1/82 | TITLE<br>CABLE, NULL MODEM<br>digital                                     |   |   |  |
| DO NOT SCALE DRAWING<br><br>REMOVE BURRS AND<br>BREAK SHARP CORNERS   |   |                               | DOCUMENT NUMBER<br>CUA5C22E-0-0<br>NONE  |  |   |   |   |  |
| MATERIAL<br>++  |   |                               | FINISH<br>++   |  |   |   |   |  |
| FINISH<br>++  |   |                               | K-02-BC22E-0   |  |   |   |   |  |



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\*\*\* DRAWING DIRECTORY \*\*\*

| UNIT VARIATIONS |                        |
|-----------------|------------------------|
| VAR             | TITLE                  |
| BC17E-25        | V.35 CABLE, 25 FT LONG |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |
|                 |                        |

USED ON OPTION/MODEL  
DECSA

DRN.  
R.J. RILEY  
DATE  
7-27-83

CHK'D  
R.J. RILEY  
DATE  
7-27-83

PROJ. ENG.  
J. BUZYNSKI  
DATE  
7-27-83

PROD.  
B. SWAN  
DATE  
7-27-83

SHEET 1 OF 2

digital

TITLE:

CABLE, V.35 MODEM

| SIZE  | CODE | NUMBER      | REV |
|-------|------|-------------|-----|
| K     | DD   | BC17E-0-DBF | A   |
| DIST. |      |             |     |

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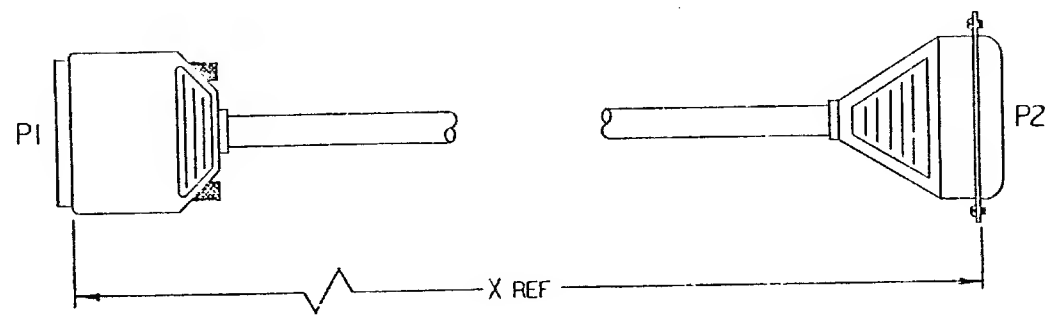
[illegible]

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| LEGEND |      |       |      |         |
|--------|------|-------|------|---------|
| FROM   |      | TO    |      | REMARKS |
| CONN   | WITH | CONN  | WITH |         |
| PI-V   |      | P2-8  |      |         |
| PI-X   |      | P2-26 |      |         |
| PI-R   |      | P2-6  |      |         |
| PI-T   |      | P2-24 |      |         |
| PI-Y   |      | P2-5  |      |         |
| PI-a   |      | P2-23 |      |         |
| PI-p   |      | P2-4  |      |         |
| PI-S   |      | P2-22 |      |         |
| PI-U   |      | P2-17 |      |         |
| PI-W   |      | P2-35 |      |         |
| PI-D   |      | P2-9  |      |         |
| PI-B   |      | P2-19 |      |         |
| PI-C   |      | P2-7  |      |         |
| PI-B   |      | P2-19 |      |         |
| PI-E   |      | P2-11 |      |         |
| PI-B   |      | P2-19 |      |         |
| PI-J   |      | P2-15 |      |         |
| PI-B   |      | P2-19 |      |         |
| PI-H   |      | P2-12 |      |         |
| PI-B   |      | P2-19 |      |         |
| PI-K   |      | P2-10 |      |         |
| PI-B   |      | P2-19 |      |         |
| PI-A   |      | P2-1  |      |         |
| PI A   |      | P2-1  |      |         |

| LEGEND   |         |
|----------|---------|
| PART NO. | DIM "X" |
| BC17E-25 | 25 FT.  |
| BC17E-50 | 50 FT.  |
| BC17E-A0 | 100 FT. |
| BC17E-A5 | 150 FT. |
| BC17E-B0 | 200 FT. |
| BC17E-B5 | 250 FT. |

NOTE:  
1. SHIELD IS CONNECTED TO THE SHELL AT BOTH ENDS AND TO BRAIDED PIGTAILS AT THE PI END.



CAUTION: SEE OFF SHEET PARTS LIST  
K-PL-BC17E-0-DBP. (Z7331B)

| REVISION HISTORY |     |
|------------------|-----|
| DATE             | REV |
| 1/1/83           | B   |
| 1/1/83           | A   |

| DESCRIPTION  |                 | DRAWING NO.                            | PART NO.                  | ITEM NO.                 |                          |                          |                          |
|--|-----------------|--|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114) |                 |  |                           |                          |                          |                          |                          |
| INCHES TOLERANCES  | ANGLES ± 0° 30' | APPLICABLE DIMENSION RANGE (CHECK ONE) | DIMENSION RANGE IN INCHES |                          |                          |                          |                          |
|  |                 |  | OVER 0 TO 0.2             | OVER 0.2 TO 1.2          | OVER 1.2 TO 10           | OVER 10 TO 100           | OVER 100 TO 1000         |
| X ± .1   |                 | <input type="checkbox"/>               | <input type="checkbox"/>  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| XX ± .02   |                 | <input type="checkbox"/>               | <input type="checkbox"/>  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| XXX ± .005   |                 | <input type="checkbox"/>               | <input type="checkbox"/>  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| THIRD ANGLE PROJECTION   |                 | DATE                                   | DATE                      | TITLE                    |                          |                          |                          |
| DO NOT SCALE DRAWING   |                 | 1/1/83                                 | 1/1/83                    | CABLE, V. 35             |                          |                          |                          |
| REMOVE BURRS AND BREAK SHARP CORNERS   |                 | 1/1/83                                 | 1/1/83                    | MODEM                    |                          |                          |                          |
| MATERIAL   |                 | 1/1/83                                 | 1/1/83                    | DOCUMENT NUMBER          |                          |                          |                          |
| SEE PARTS LIST   |                 | 1/1/83                                 | 1/1/83                    | D AD BC17E-0-0 B         |                          |                          |                          |
| FINISH   |                 | K-DD-BC17E-0-0                         |                           | SHEET 1 OF 1             |                          |                          |                          |

